

THE BIG  
**3** AT E3

ANOTHER  
WINDOWS 8  
PREVIEW

THE VERY  
BEST OF  
COMPUTEX

PLUS  
**5** TWEETS  
OF THE WEEK

# DISTRO

060812 #44

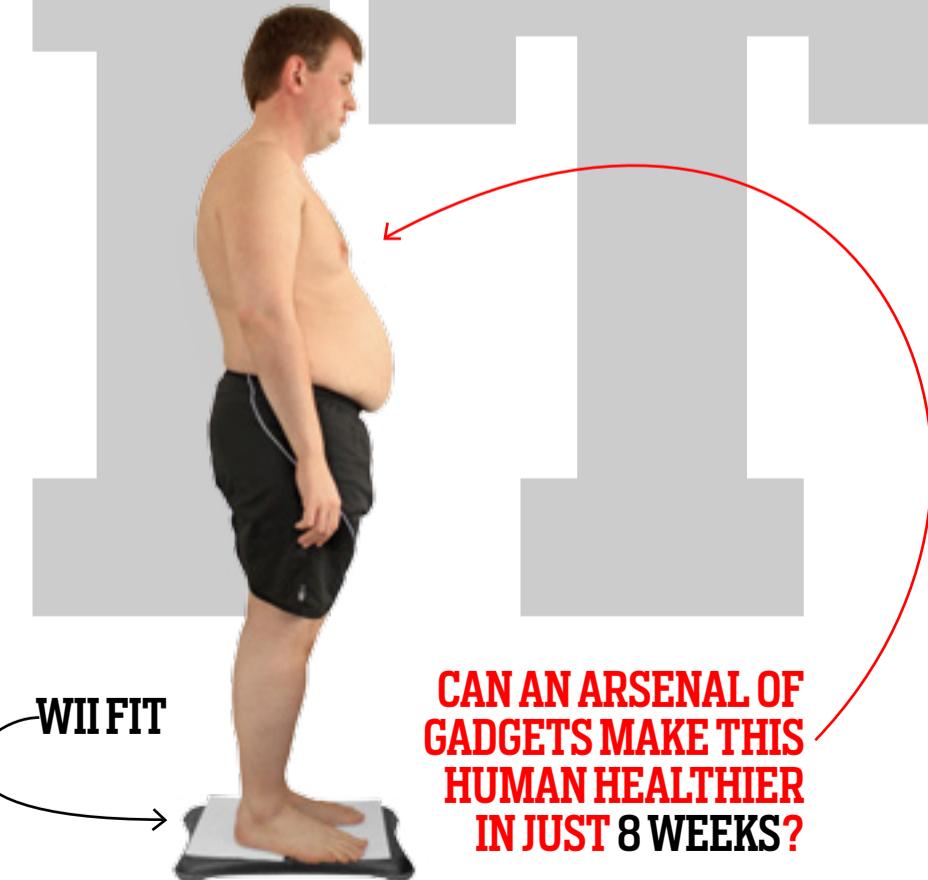
engadget



MOTOACTV



FITBIT



CAN AN ARSENAL OF  
GADGETS MAKE THIS  
HUMAN HEALTHIER  
IN JUST 8 WEEKS?



The screenshot shows the TechCrunch iPad app interface. At the top, there's a navigation bar with the TechCrunch logo, a search icon, and a gear icon. The main content area displays four news articles with their respective images and brief descriptions. To the right, a sidebar lists the top nine trending stories of the day, each with a small green 'TC' icon and the source 'TechCrunch' and a timestamp.

Rank	Story	Source	Timestamp
1	Twitter Acquires Social Analytics Platform Backtype	TechCrunch	1 hour ago
2	The Starbucks Card is Real	TechCrunch	1 minute ago
3	Facebook Did Not 'Steal Your Privacy'	TechCrunch	14 minutes ago
4	Twitter Gains Realtime Activity Streams	TechCrunch	3 minutes ago
5	100 Watt USB Takes Aim At Thunderbolt	TechCrunch	2 hours ago
6	Foodspotting Hits A Million Downloads	TechCrunch	just now
7	No Charges For Chen In iPhone 4 Leak Case	TechCrunch	8 minutes ago
8	Hulu To Start Streaming In The Land of the Rising Sun	TechCrunch	8 minutes ago
9	Twitter Gains Realtime Activity Streams	TechCrunch	just now

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DISTRO

06.08.12

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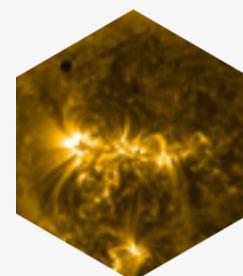
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# E3 EXPIRES WHILE WWDC LOOMS

DISTRO  
06.08.12

EDITOR'S  
LETTER



**A** hectic week in Los Angeles has come to a close and I am home again — for the moment. E3, as ever, was a pretty amazing show, a must-see venue for the greatest games the industry has to offer, but it was also an underwhelming exhibition of consoles that are all simply starting to look a bit desperate.

The one trying hardest to make an impression, and sadly failing most comprehensively, is Sony's PlayStation 3. That system never delivered the far-superior graphics the company promised and never really made up for stumbling out of the block with an overly optimistic price. Move has proven to be a resoundingly forgettable add-on, much like the various AR webcams the company has shuffled out over the years.

The next big add-on for the PS3 is called the Wonderbook, an augmented reality book that even a J.K. Rowling partnership couldn't make interesting. The potential is there for this to be intriguing, but reading a book upside-down on your television just sounds like a drag — even if it is a magical one.

Microsoft had no big surprises for us on the game front, but its SmartGlass application proved to be even bigger than we'd

anticipated. We were thinking it would just be an AirPlay-like service, pushing content to the Xbox, but as it turns out it's a full-fledged media companion. In fact it's called a Companion App, with other services like HBO Go pushing things like a *Game of Thrones* map to a connected smartphone or tablet as the show plays.

You can even use that mobile device as a remote trackpad and keyboard for the Xbox 360, which will be very helpful when they release Internet Explorer later this year. The demos we've seen thus far have been simple, but the potential is huge.

And then there's the Nintendo Wii U, which also has huge potential — potential that was not exactly shown off in the company's presentation. Nintendo reps on-stage kept complaining about a lack of time to show off everything, but they certainly had enough time to tell us a price and a date. Sadly, they chose not to.

Rather than worry about such minor details, Nintendo instead showed off a number of games, both first-party and third. Biggest by far was *Pikmin 3*, which Miyamoto himself introduced and does look to make good use of the Wii U's touchscreen. The majority of the time, however, was dedicated to *NintendoL-*

and, a *Wii Sports*-like collection of mini-games designed to make the most of the system's unique accoutrements. We got to play many of these later and some of them are indeed quite fun, but none look to have the blockbuster playability *Wii Sports Tennis* or *Bowling* achieved.

Thankfully there were plenty of third-party titles on display, but the vast majority of them were titles that were hot three or four months ago, games like *Arkham City* and *Mass Effect 3*. By the time the Wii U ships toward the end of the year these games will be looking properly tired.

Computex was also happening this week in Taiwan, where we saw a ridiculous number of tablets and laptops unveiled, many running Windows 8. ASUS split the difference with a line of Transformer Books, tablets with keyboard docks running Windows 8 and available in 11.6, 13 and 14 inches. These are tablets first and laptops second, but despite that are rocking proper x86 laptop specs, with Core i7 Ivy Bridge processors and 4GB of RAM. No word on pricing, but they look to have a lot of potential.

While all this was going on, Google decided to host an event to show off the “next dimension of Maps” — Maps in this case being Google Maps for mobile devices. The company showed offline access to map data in its Android app (something that was previously available as a Google Labs feature) and also unveiled some impressively detailed 3D imagery, captured with a much higher level of definition than Maps or Earth previously offered.

The improvements are tidy, but the timing, just ahead of a WWDC where Apple is rumored to be unveiling its own mapping and navigation product, feels reactive. We have to wonder whether anyone will still be talking about Google's improvements in a week's time.

WWDC is, as we go to print, just a few days away. The keynote on Monday, June 11th is looking to be a good one, with many suggesting that new hardware will be unveiled. Naturally nothing is confirmed yet, but the sheer volume of leaks pointing to revisions to Apple laptops, and perhaps even desktops, certainly has us giddy with anticipation.

Until then, enjoy this week's Distro, which includes an amazing feature by our own Daniel Cooper in which he takes us on a very personal exploration of how technology can help you shed some unwanted baggage. We have reviews of the Lenovo ThinkPad X230 and Sony NEX-F3, our detailed impressions of the Release Preview version of Windows 8, and plenty of hands-on and impressions from E3 and Computex. Ross Rubin explores the world of multi-screen gaming in *Switched On* and photographer Wynn Ruji does Q&A. It's all just a tap or a swipe away, so go ahead, reach out. 

TIM STEVENS  
EDITOR-IN-CHIEF,  
ENGADGET

# ENTER

EYES-ON

## THE FIT CREW

DISTRO  
06.08.12

The past two years have seen an explosion in high-tech fitness aids. From the Nike+ to Jawbone's ill-fated Up, health-minded wearables have solidified their place on the market. Herewith, a few of the hottest names in fit tech.



NIKE+ SPORTWATCH GPS



MOTOACTV



JAWBONE UP

PHOTOGRAPHS BY WILL LIPMAN

## JAWBONE UP



**THE DESIGN:** Meant to be worn for days at a time, the Up is made of spring steel wrapped in thermoplastic, hypoallergenic rubber and is waterproof up to 3.3 feet. It comes in three sizes and seven colors, and looks like something akin to a stylized Livestrong bracelet. Despite the pre-release hype, it was plagued by hardware issues that forced Jawbone to offer a no-questions-asked refund for the wristband.

**THE BILL:** \$100

## MOTOACTV



**THE DESIGN:** There's no mistaking the MOTOACTV's likeness to the iPod nano. Its 1.6-inch touchscreen practically pleads for the comparison. It features a set of physical shortcut buttons for navigating with sweaty fingers, and straps on with a perforated black and red rubber watchstrap.

**THE BILL:** \$250 to \$300

NIKE+  
SPORTWATCH  
GPS

**THE DESIGN:** Designed in conjunction with navigation experts TomTom, Nike's Sportwatch GPS became the standard bearer for fitness gadgets when it was announced at CES in 2011. It features three physical buttons and a touch-sensitive bezel for easy navigation. It also communicates throughout workouts with the "shoe-based" Nike+ Sensor.

**THE BILL:** \$170



## WII U

**A year later, the Wii U** looks and feels much like it did when we played with it last. It's undergone small hardware adjustments, like the move from circle sliders to analog joysticks. However, we've only had time with a selection of mini-games and still we don't know how much it'll cost or when it'll ship. With no proper guidance on those fronts it's hard to make a prediction on just how much of a must-buy the console is this holiday season, but surely by now most Nintendo fans will have already made up their minds on that front.



**PRICE:**  
**N/A**



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**AVAILABILITY:**  
**LATE 2012**

**THE BREAKDOWN:**  
**DESPITE A FEW  
MINOR TWEAKS,  
IT'S STILL THE SAME  
OLD WII U WE SAW  
LAST YEAR.**

DISTRO  
06.08.12

ENTER

HANDS-ON  
E3



## PLAYSTATION WONDERBOOK

The first title for the new tech is a collaborative effort with J.K. Rowling, entitled Book of Spells. The kit makes use of an augmented reality book in tandem with the Move hardware to project images and animations (basically the game itself) right on the pages. Consisting of only six spreads (12 pages), the software will track your progression through the chapters, and beginning a new quest simply means heading back to the front of the book. In addition to using the controller as your wand, you'll also encounter scenarios where you'll need to brush sand off the AR surface or put a fire out with just your hands. We didn't encounter any lag or hiccups during the course of our session, but were left to wonder what else Wonderbook has in store.



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**PRICE: N/A**  
**AVAILABILITY: N/A**  
**THE BREAKDOWN:**  
**WONDERBOOK CERTAINLY MAKES BOOKS MORE INTERACTIVE, BUT WE'RE LEFT TO WONDER WHETHER IT WILL TRULY CHANGE THE WAY WE READ.**

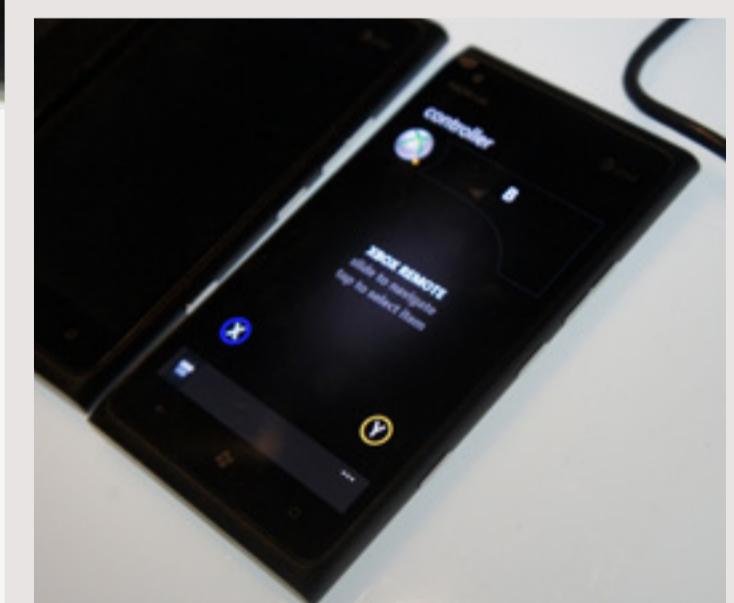


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# XBOX SMARTGLASS

**Microsoft's E3 keynote was jam-packed full of high-octane explosions, but the real excitement surrounded SmartGlass, a new technology that harnesses your mobile devices to enhance big-screen media consumption.** While we didn't get the chance to see it in all its glory — the software has the ability to turn your smartphone into an Xbox game controller or a keyboard for web browsing on your TV — we did see how the technology can augment game play as well as movie watching. Among other things, SmartGlass provided us with detailed character genealogy and episode timelines while we caught up on *Game of Thrones*. We would have liked to see a few more use cases, but it still shaped up to be a compelling experience.



**PRICE:**  
**N/A**

**AVAILABILITY:**  
**FALL 2012**

**THE BREAKDOWN:**  
**IT'S STILL UNDER CONSTRUCTION, BUT SMARTGLASS COULD SPELL TROUBLE FOR THE LIKES OF NINTENDO'S WII U.**



**PRICE: N/A**  
**AVAILABILITY: N/A**  
**THE BREAKDOWN:**  
**THESE TOUCH-ENABLED LAPTOPS CARRY MUCH OF THE SAME DNA AS THEIR PREDECESSORS, BUT THE CONVERTIBLE'S NOT QUITE GROWN UP YET.**



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# SAMSUNG SERIES 5 ULTRA TOUCH AND SERIES 5 ULTRA CONVERTIBLE

These are, more or less, variations on the same Series 5 Ultrabooks we already saw: a mix of metal and plastic, with not-backlit keys and 1366 x 768 displays. The screens are hyper glossy, but exceedingly responsive to taps and swipes, even in prototype form. In the case of the convertible, Samsung seems to have run into the same problem as Lenovo, which is to say that the keyboard is exposed when the screen is in tablet mode. As ever, it feels strange to cradle a tablet-type device whose backside is comprised of various keys.



## ASUS TAICHI CONVERTIBLE

ASUS' new **TAICHI series** packs displays on both the front and the rear, letting you use the device in a variety of configurations. In "notebook" mode, you can use TAICHI with a backlit QWERTY keyboard and trackpad. Once you close the lid, however, it's stylus time. The 1920 x 1080 displays can be used independently, so you can share with a friend — with completely different content on either side. While the device we saw was clearly an early prototype, it functioned as described and looked quite polished, so this certainly isn't merely a concept at this point. The touch panels were very responsive, and quite bright, even at their lowest setting.

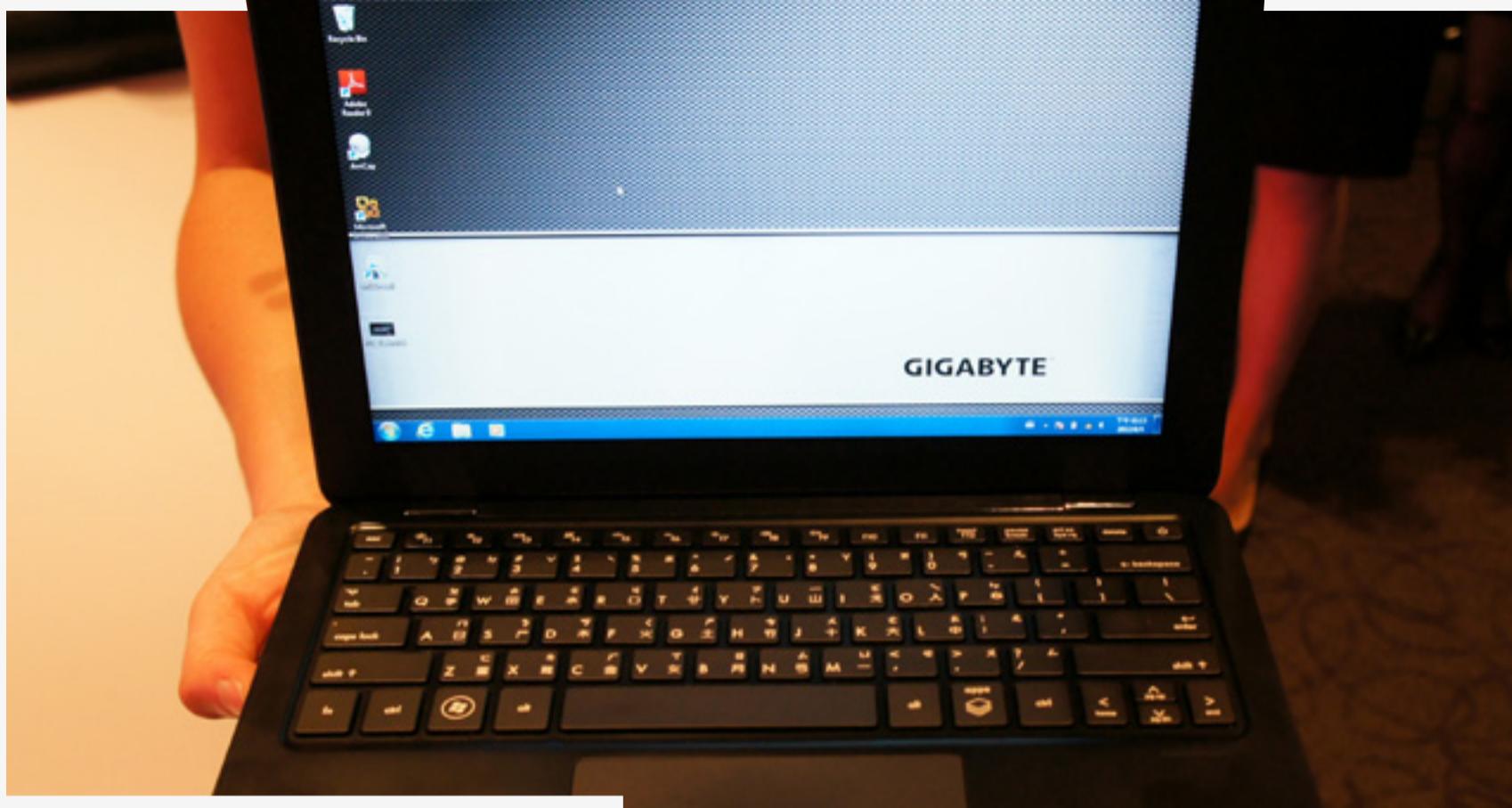


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**PRICE: N/A**

**AVAILABILITY: N/A**

**THE BREAKDOWN:  
TWO SCREENS,  
ONE TABLET.**



**PRICE: \$1,000 +**

**AVAILABILITY:  
SUMMER 2012**

**THE BREAKDOWN:  
IT MIGHT CLAIM TO  
BE THE WORLD'S  
LIGHTEST  
ULTRABOOK, BUT  
IS WEIGHT REALLY  
WHAT MATTERS?**



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## GIGABYTE X11

We're not sure if the X11 really is the world's lightest Ultrabook or how long it will hold that title, but in a way, it doesn't matter. This thing really is featherweight, and is easy to carry across the room in one hand. Its carbon fiber build makes it feel smooth and soft, but still managed to pick up a fair amount of fingerprints. The keyboard felt cramped, while the trackpad has a nice smooth surface that responded well to simple taps. We'll hold our final judgment until we can get our hands on a final, production-grade unit, though, we wonder if the X11's superlatively light weight and carbon fiber construction are enough to make it stand out against more impeccably designed machines.



# ACER ICONIA W700 AND W510

**PRICE:** **N/A**

**AVAILABILITY:** **N/A**

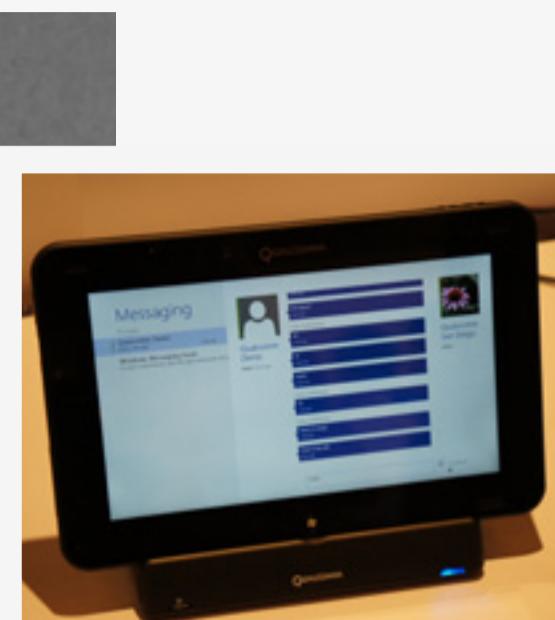
**THE BREAKDOWN:**

**THOUGH WE'RE  
STILL IN THE  
DARK ON RELEASE  
DETAILS, ACER'S  
WINDOWS 8 SLATES  
LOOK LIKE A  
PROMISING PAIR.**



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**Acer joined the masses this week,** unveiling its first Windows 8 slates, the W700 and W510. The outfit appears to be marketing the W700 as a “desktop replacement” when paired with a cradle and keyboard. It comes equipped with a massive 11.6-inch full HD (1920 x 1080) touchscreen, and ships with a cradle for landscape or portrait viewing (you’ll need to use Bluetooth to add an external keyboard). The Iconia W510 includes a 10.1-inch IPS display and a detachable chiclet keyboard dock that doubles as an extended battery, enabling up to 18 hours of use. You can also rotate the device 295 degrees for presentations. Both the tablet and dock are very thin and light, and offer very responsive performance — no qualms there. Sadly, there’s no detailed specs, pricing or availability to speak of just yet.



**PRICE: N/A**  
**AVAILABILITY:**  
**FALL / WINTER 2012**  
**THE BREAKDOWN:**  
**THIS PRE-RELEASE**  
**WINDOWS RT BUILD**  
**IS SMOOTH AS SILK**  
**ON A DUAL-CORE**  
**PROCESSOR; WE**  
**CAN'T WAIT TO SEE**  
**WHAT IT DOES WITH**  
**FOUR CORES.**



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## WINDOWS RT

We got the chance to demo Microsoft's Windows RT running on Qualcomm's Snapdragon S4 development tablet at Computex this week. The verdict? It's smooth as silk on a 1.5GHz dual-core APQ8060A with 2GB of RAM, which means it's likely to be even more impressive on the company's quad-core offering. We got to see SkyDrive photo sharing between a Nokia Lumia 900 and the Windows RT device, showing that both WiFi and 3G connectivity are fully supported. Ditto GPS — with Bing Maps purring along nicely. Most interesting, however, was a demo of Vendetta Online, which ran without hiccups even when multitasking along with other apps. The company's focus is clearly on working with Microsoft to streamline the new OS for the Snapdragon platform, and from what we saw today, things are making great progress.

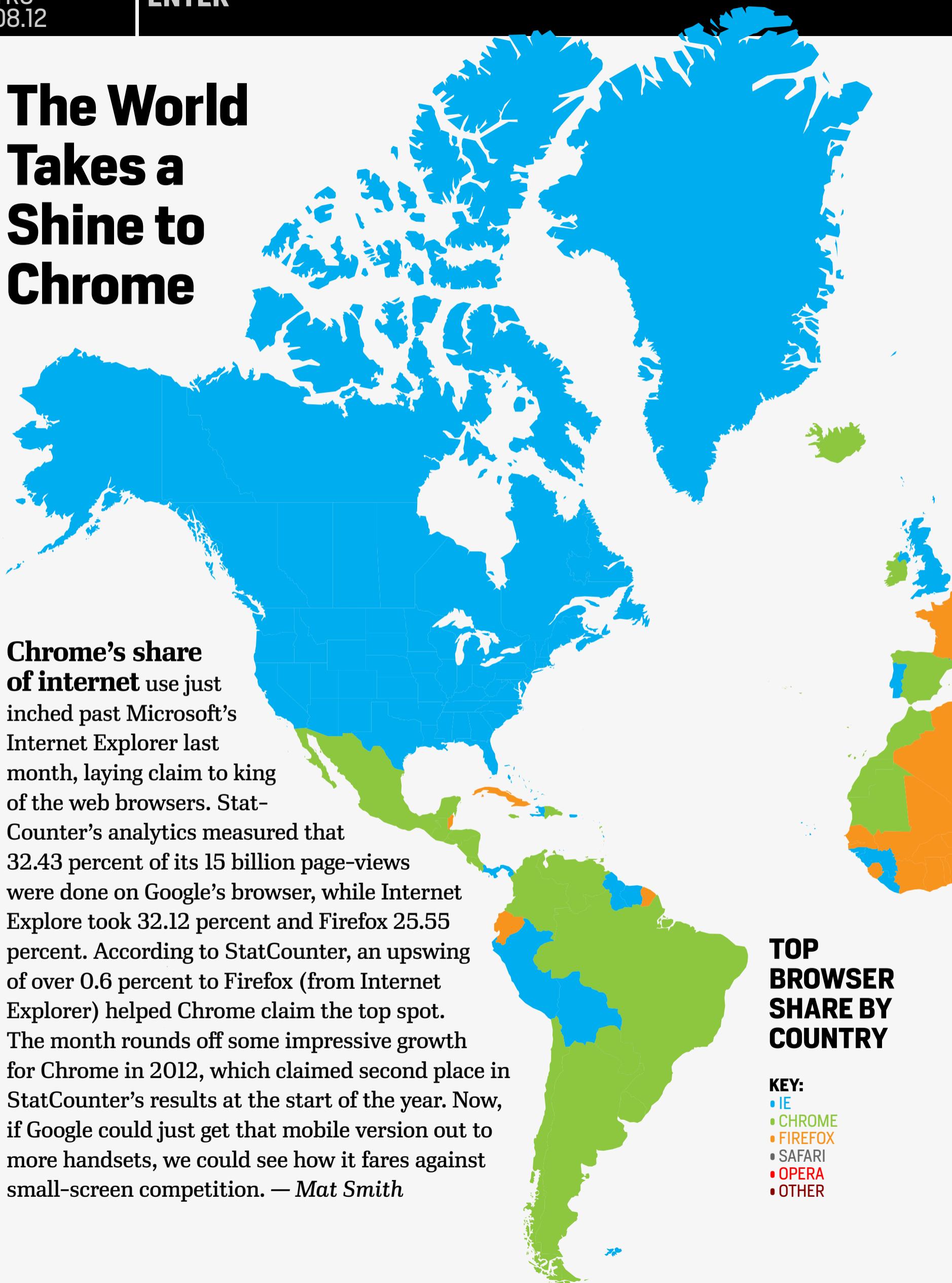
# The World Takes a Shine to Chrome

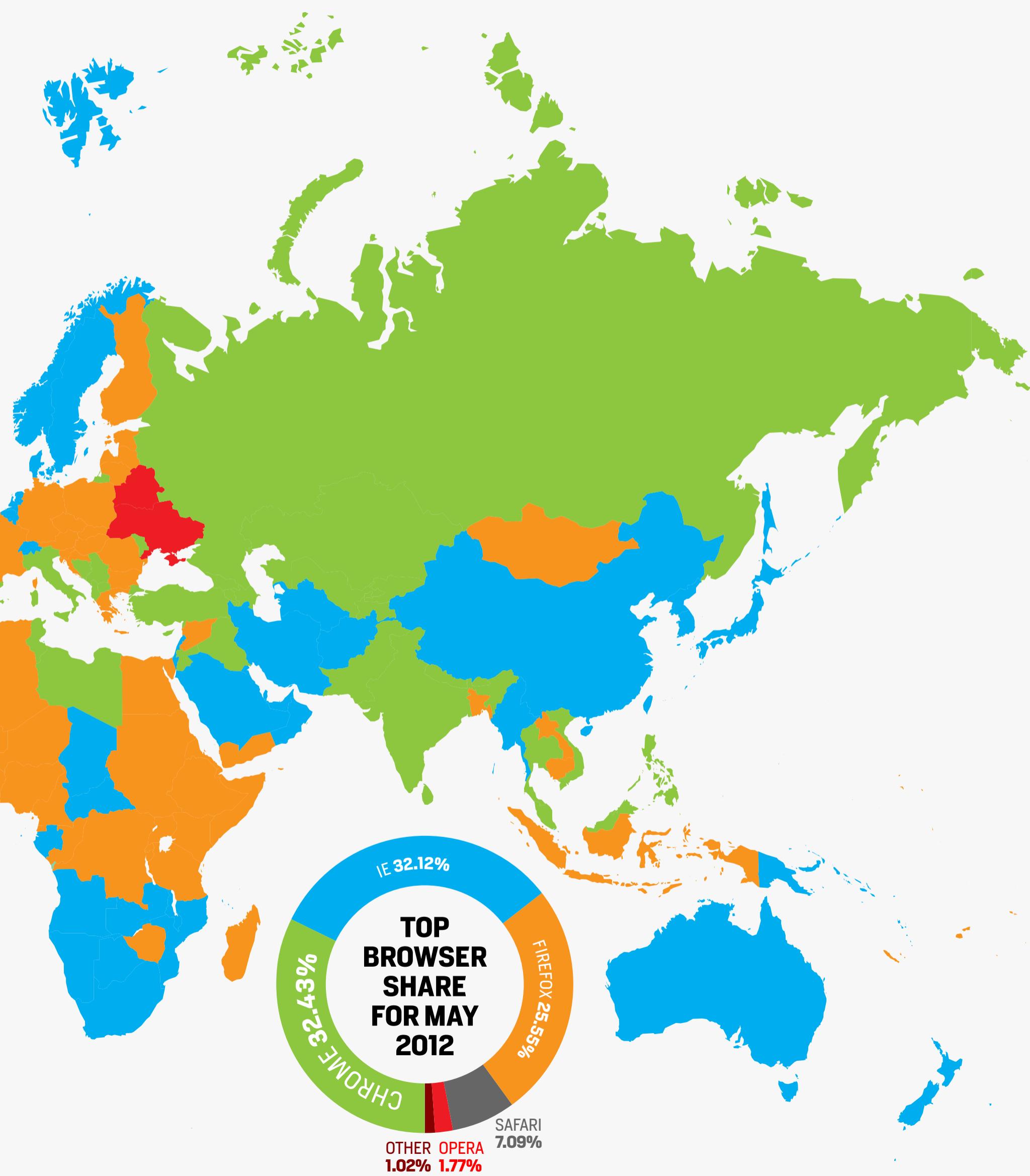
Chrome's share of internet use just inched past Microsoft's Internet Explorer last month, laying claim to king of the web browsers. StatCounter's analytics measured that 32.43 percent of its 15 billion page-views were done on Google's browser, while Internet Explore took 32.12 percent and Firefox 25.55 percent. According to StatCounter, an upswing of over 0.6 percent to Firefox (from Internet Explorer) helped Chrome claim the top spot. The month rounds off some impressive growth for Chrome in 2012, which claimed second place in StatCounter's results at the start of the year. Now, if Google could just get that mobile version out to more handsets, we could see how it fares against small-screen competition. — *Mat Smith*

## TOP BROWSER SHARE BY COUNTRY

**KEY:**

- IE
- CHROME
- FIREFOX
- SAFARI
- OPERA
- OTHER





Mario creator Shigeru Miyamoto presents the GamePad controller for Wii U.

# GAMING'S BIG THREE AT E3: WHO CAME OUT ON TOP?



DISTRO  
06.08.12

ENTER

EDITORIAL

BY BRIAN HEATER

**I**t's early June and we're in Los Angeles, and that can only mean one thing: it's time to get our game on at the Electronic Entertainment Expo. But even before the convention kicked off, much of the big news was already out of the way. Microsoft, Sony and Nintendo each had their time to shine with pre-show press conferences. So, how did the big console makers perform? Was this an E3 for the record books or just a year of lackluster demos?



Engadget EIC  
Tim Stevens,  
always at home  
behind the  
wheel.

## TIM STEVENS

I hate picking “winners” at these things because E3 isn’t quite so simple — he who has the flashiest presentation may not have a console that’s in the best position six months from now. He who has the most success during the holidays is, of course, the true winner. But still, it’s hard not to compare each of the big three pre-show events and think about which was most impressive. Sadly, Sony was the least. Its event ended with a thrilling demonstration of *The Last of Us*, and *Beyond* (from *Heavy Rain* developer Quantic Dream) was visually stunning. But, it’s hard to get past the painfully long demo of the Wonderbook, something that should have been a footnote.

Nintendo was only slightly more engaging. What should have been a thrilling demonstration of high-quality launch titles instead degraded into a tedious slog through *NintendoLand* mini-games. Such tiny titles may be fun to play, but none are fun to watch.

It’s hard to get past the painfully long demo of the Wonderbook, something that should have been a footnote.

It was Microsoft, then, who impressed the most, but even that presentation lagged at times. Still, the demos of SmartGlass look like they could establish cross-device gaming in a new way. The only question, then, is what the developers will do with it. I’m optimistic they’ll make some magic.

## DARREN MURPH

I can’t say for sure that any of the big three “won” or “lost.” That said, I can say that this year’s E3 excited me like none in the past ever have, and it’s largely because the directions of Sony, Microsoft and Nintendo have changed significantly compared to just a decade ago. Granted, Sony tried to pivot toward home entertainment by shoving a Blu-ray player into the PlayStation 3, but it was clearly a console delivered ahead of its time. Now, however, the world has caught up, and there’s no better proof than Microsoft’s keynote.

# I've never seen so much genuine life squeezed out of a seven-year-old console.

I've never seen so much genuine life squeezed out of a seven-year-old console. The Xbox 360 is perhaps even more compelling today than it was back when I was a minor. How is *that* possible? While Sony and Nintendo have both impressed me — Sony with its fantabulous title roadmap and Nintendo's plans to finally embrace high-definition televisions — Microsoft has done the most to move the home console forward. The ecosystem plays with Xbox Music, SmartGlass and Windows 8 cannot be understated, and Xbox gamers who may have found it easy to brush off Windows Phone and Win8 just months ago are likely rethinking their loyalties.



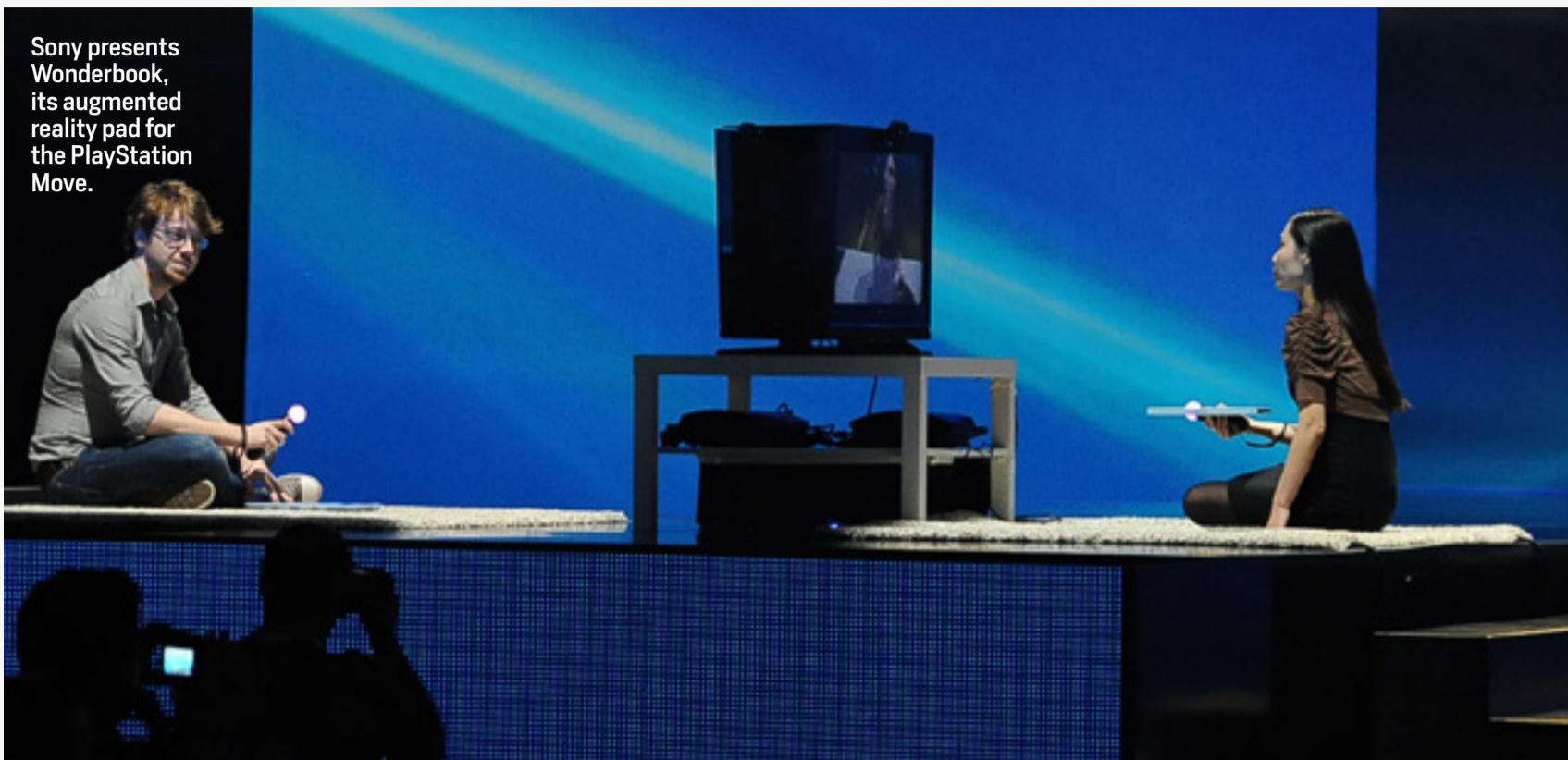
Now, if only that 24/7 WatchESPN offering on the 360 were available as a standalone monthly purchase, separate from a pay-TV subscription, I'd be happy to hand out a gold medal.

## BRIAN HEATER

All eyes on Nintendo. That was the theme of the show's first two days. After all, the Mario-maker was the only member of the big three expected to roll out any major hardware, with new consoles by Sony and Microsoft still a ways down the road. And, as expected, the latter two didn't pull out any big tricks this year. Microsoft's SmartGlass certainly shows a good deal of promise, and Sony's *WonderBook* is interesting (even if the demo wasn't).

For a company with too much to say for a single keynote, Nintendo ended up not saying a heck of a lot.

After promising a blanket of coverage, Nintendo didn't really give us a lot at its pre-show event. We got a broad "holiday" date for the Wii U's release and no pricing. The new console's hardware was glossed over, and no trail-



ers particularly managed to “wow” the crowd. Nintendo spent even less time showing off the 3DS, announcing yet another press conference to discuss its titles. For a company with too much to say for a single keynote, Nintendo ended up not saying a heck of a lot — a turn of events that doesn’t bode well for the company’s future.

## DONALD MELANSON

If we learned one thing from this year’s E3, it’s that one big screen in the living room may no longer cut it — or so the big three game companies hope. Microsoft, Sony and Nintendo each showed off their own spin on the “second-screen experience,” offering three decidedly different takes on the same basic concept. Nintendo is, of course, opting for the all-in-one approach with its Wii U console: the controller *is* the second screen. Sony is going in-house,

but not all-in-one, relying on its PlayStation Vita handheld as a second screen. And Microsoft has chosen to go the bring-your-own-device route with its SmartGlass technology, which lets you use any smartphone or tablet as the second screen.

Each option has its advantages and challenges, but Sony’s certainly seems to face the toughest road to widespread adoption — and, indeed, it is placing the least emphasis on it of the three. Nintendo is arguably making the biggest bet, and

If we learned one thing from this year’s E3, it’s that one big screen in the living room may no longer cut it.

it's also the hardest to judge at the moment, with its success largely dependent on things still unknown — namely, price and some truly must-have games and applications. That leaves Microsoft, which has already turned the Xbox 360 into a full-fledged media device, and now seems set to make it an even more connected one. Its less-integrated approach may reduce the number of unique gaming experiences, but it's rolling it out to a large base of existing Xbox 360 users, many of whom already have a smartphone or tablet. That's an advantage that's tough to ignore, and gaming may prove to only be a secondary consideration for SmartGlass if it's also able to make the Xbox 360 even more of a hub for other activities than it already is.

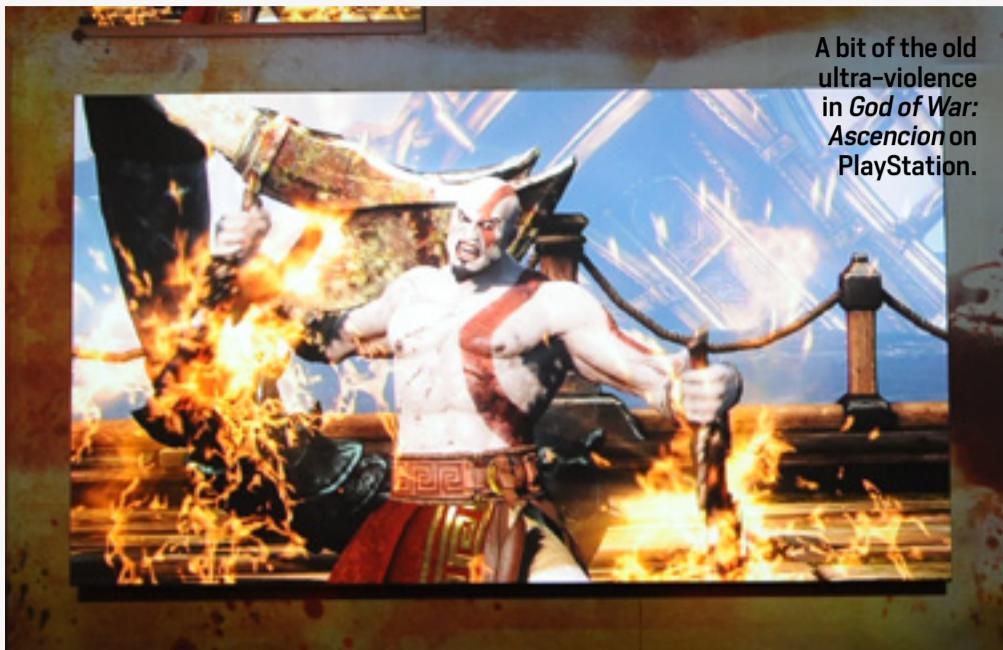
## TERRENCE O'BRIEN

Who “won” E3? Well, I can tell you for sure it wasn’t the anti-violent video game advocates. In fact, it’s hard to remember a more stomach-turning set of teasers, trailers and tech demos. Logically, the Wii U’s innovative controller *should* have stolen the show at Nintendo’s keynote, but *NintendoLand* was simply overshadowed by the darkness of *Batman Arkham City* and the gore of *Ninja Gaiden 3*. Trying to keep track of the number of zombies, aliens, terrorists and just plain fellow human beings who were blown up, shot or shanked in the neck (and *whoa*, was there a lot of neck stabbing) was an exercise in futility. Even Quantic, the makers of *Heavy*

*Rain* (a landmark, plot-driven title) crammed an unseemly amount of explosions and crashes into the *Beyond: Two Souls* trailer, which started with a perfectly pleasant police interrogation of Juno.

*The Last of Us*, like its protagonist Joel, kills not for joy, but for survival.

Without much new hardware to speak of, perhaps that’s what this E3 was all about — breaking through our thick layer of desensitization and making violence shocking again. If that’s the case, then the winner is clear: *The Last of Us*. While some games (*Halo*, *Splinter Cell*, *Far Cry*) seem to relish in a bit of the ol’ ultra-violence, *The Last of Us* goes there because it *has to* if it wants to collect your gaming coin. It, like the protagonist Joel, kills not for joy, but for survival. And it makes sure you know just how tough of a decision that is. When you choke out an enemy the camera spins around and zooms in on the face of your victim, who claws and thrashes as you squeeze the last bit of life from his body. From there things only get more intense. When he runs out of ammo, Joel charges at another (presumably) bad guy, slamming him into a wall, crushing his windpipe with his forearm — producing



A bit of the old ultra-violence in *God of War: Ascension* on PlayStation.

a crunch that made us glad we hadn't eaten recently. A little later in the trailer, another man is burned alive with a molotov cocktail and yet another has his head literally blown off in gruesome detail by a pointblank shotgun blast, while he begs for his life.

The problem for me is not so much the violence, but the lack of context. I'm sure that at least some of these games have perfectly legitimate (or at least logical) reasons for the extreme levels of savagery, but I'm not seeing that in the trailers. Instead every game simply looks like a mindless blood bath, and the winner is whoever most successfully taps into our destructive urges and proclivity towards bloodlust. So, with that in mind, I'd like to crown Nintendo the "winner" of this year's E3. The continued focus on fitness is, if nothing else, admirable and the company produced the only vaguely interesting-looking title that doesn't involve putting a knife through someone's throat: *Pikmin 3*.

## MAT SMITH

My PS3 shuffles toward its eBay listing final resting place and my Wii remains a long-distant memory. So, I excitedly waited for what Sony could offer its main console in its twilight years and what Nintendo's next adventure into family lounges was going to look like. Unfortunately, Microsoft stole the carpet from underneath

both. While Sony wheeled out plenty of big-budget (and aggressive) new titles — ones that seemed to please the crowd of assembled fans and journalists — I grimaced. The idea of some magic-wielding silliness piqued my interest, but I'm never going to stump up the cash. (Perhaps more honestly, I'm just glad that Sony's trying to eke something more from its underwhelming motion-sensing armory.) Despite a pre-pre-E3 warm-up, Nintendo didn't truly announce all that much about its next big thing. No date beyond holidays and no pricing — which could prove important given all the components the company's trying to shift with the Wii U. Instead, we had presentations waxing lyrical about social engagement and mini games that made me snore. Why not show off more of that hulking new controller and any features already baked into the hardware? The biggest tell that Nintendo wasn't winning anyone over? A stoic crowd. Of games journalists. At the biggest global games event of the



Reggie Fils-Aime  
gets fit on stage  
at the Nintendo  
keynote.

year. That should make some Nintendo execs a little hot under the collar.

**The biggest tell that Nintendo wasn't winning anyone over? A stoic crowd. Of games journalists. At the biggest global games event of the year.**

Despite the appearance of *South Park* creators and Usher on stage, Microsoft still came up with the most cohesive collection of reasons to get an Xbox — in its

seventh year. Canny subscription model or not, SmartGlass chooses to be platform-friendly, sharing its AirPlay-esque wealth across platforms — whether iOS, Android or Windows Phone. Even at this early stage, it's an intelligent move for Microsoft to gear it toward all users. The tie-in with Nike+ is inspired — working with a sports company that seems to get technology, although the idea of a phone-based reminder sounds both useful and infuriating. On a final (pretty selfish note), where are the price-cuts? If Nintendo shaves a few notes off that 3DS, you might get it added to the rest of my portable family. Likewise, the PS Vita remains a pricey curio that isn't grabbing all that many gamers — something that's unlikely to change any time soon. ▶



## Wired 1.01

**Wired** got an early start on its 20th anniversary celebrations last week with the release of a special edition of its very first issue, exclusively for the iPad. In addition to the complete contents of the landmark debut, the iPad edition includes an extensive 12,000-word oral history of *Wired*'s founding from Louis Rossetto, Jane Metcalfe, Kevin Kelly and other key figures behind the magazine — complete with plenty of archival photos. Of course, the issue itself remains as great a read as ever, with Bruce Sterling landing on the cover for his extensive report on the future of war, and the rest of the issue filled with pieces from the likes of John Markoff, Stewart Brand and Simson L. Garfinkel — and, of course, Nicholas Negroponte with the first of many columns for the magazine's back page (this one looking at the "problem" with HDTV). Best of all: the whole thing is completely free. (If you're running low on storage, however, beware: this sucker weighs in at 1.4GB.)

### Freaks, Geeks and Microsoft: How Kinect Spawned a Commercial Ecosystem

by Rob Walker

***The New York Times Magazine***

There's been plenty of great stories associated with Microsoft's Kinect sensor since its release, but this piece from the *New York Times Magazine* does a good job of recapping just what a phenomenon it has been — and how it has expanded its reach far beyond video games.



Click on  
headlines  
to read full  
stories

### 25 Years of HyperCard — the Missing Link to the Web

by Matthew Lasar

***Ars Technica***

The actual anniversary is only in August, but *Ars Technica*'s Matthew Lasar has already set a fairly high bar for tributes with his look back at Apple's groundbreaking HyperCard platform — which, as the title suggests, was in many ways a direct precursor to the World Wide Web.

### Obama Order Sped Up Wave of Cyberattacks Against Iran

by David Sanger

***The New York Times***

You've probably heard the news by now, but David Sanger's full *New York Times* piece on the origins of the Stuxnet computer worm — drawn from his own book, "Confront and Conceal" — is well worth reading for a detailed look at this new type of warfare that's still just in its early days.

### The Mechanics and Meaning of That Ol' Dial-Up Modem Sound

by Alexis Madrigal

***The Atlantic***

It's not too much of a stretch to call the screech of a dial-up modem one of the defining sounds of a generation. Sadly, that also means that it's increasingly unknown to a new generation. Here, Alexis Madrigal gets to the bottom of exactly what the sound is and what it all means.

# REVIEW

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DISTRO  
06.08.12



**Windows 8  
Release  
Preview**



**Lenovo  
ThinkPad  
X230**



**Sony  
NEX-F3**

WINDOWS 8



**Microsoft takes another small step toward releasing its mobile-minded operating system.**  
By Dana Wollman

Until now, it seemed like Microsoft was gearing up to unveil the almost-final Windows 8 Release Preview in the first full week of June, just in time for what will no doubt be known as the world's premier Ultrabook trade show. As it turns out, though, the folks in Redmond couldn't contain their jubilation any longer, and instead rolled out the Release Preview several days ahead of schedule. The update, free to anyone who wants to try it, offers a few notable enhancements, including a trio of new apps, a "Flip ahead" browser gesture, Flash support and

a couple of updated multi-monitor features. A few heavy hitters like Wikipedia and Box.net are also using the occasion to debut apps in the Windows Store. And the OS is now available in 13 languages. Mostly, though, this update brings performance and stability fixes, along with granular tweaks like being able to pin stocks to the Start screen. Certainly, a two-hour press conference was not necessary this time around.

Ready to upgrade from the Consumer Preview? Just remember that you'll need to do a clean install, which means unless your user account is tied to a Microsoft ID you're going to lose your personal settings. Got it? Good.

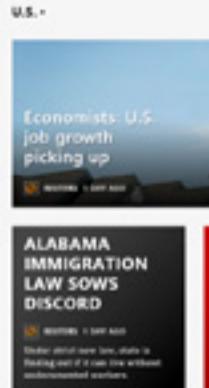
## NEW METRO APPS

Starting with some of the more major changes Microsoft's made this time

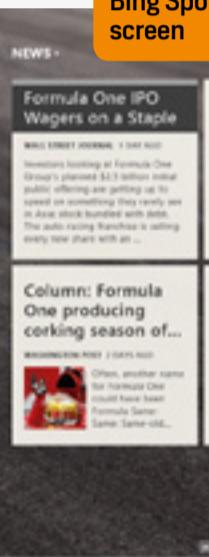
around, the engineering team has added a few more native apps and a trio of Bing-powered hubs: travel, sports and news. Across all the apps — even older ones — Microsoft unified the look of the app bar that drops down from the top of the screen. The options are app-specific, of course (favorite sports and trending news, for instance), but the look of the icons doesn't change. Now that we've got that cosmetic tweak out of the way, let's jump into the new apps.

**BING TRAVEL:** Even when Bing first launched, trip planning was touted as one of its specialties, so it makes sense that travel research and flight / hotel booking get their own dedicated app. Using the app bar at the top, you can choose to book flights or hotels, or view certain destinations, which you can pin to the





Above: Bing News screen;  
Below:  
Bing Sports screen



**Start Menu.** If you don't already have a fantasy vacation, the main page is home to a selection of featured locales, along with a motley collection of pictures, panoramas and travel articles. Once you dig into a specific destination's page, you'll get more detailed info: everything from maps to weather forecasts to fare stats. While sharing isn't an option in every native app, you can pass on lots of things here, including travel guides and particularly fetching photos.

**BING SPORTS:** New in Release Preview is a sports hub, where you can follow your favorite teams or digest the top stories across all athletics — yes, even

Formula One racing. When you enter, you'll be greeted by a top story with other articles listed over on the right. Scroll far enough and you'll find schedules, followed by a self-explanatory area called "Favorite teams." Adding these is as easy as clicking a plus sign and then typing your team into a field, which spits back autocompleted suggestions in record time.

You can add as many teams as you want, and each team's page is pinnable as a live tile. Click on one and you'll notice the general layout is the same: news, followed by a schedule. In the case of teams, you'll also get more detailed info, like standings, a roster, batting and pitching leaders, etc. Right now, you can't share anything in Bing Sports, but fear not: your ability to rub the Mariners' losing streak in your Yankee friend's face is apparently "coming soon."

Using the app bar at the top, you can also search by sport. We're sure someone will suggest a pastime that's not listed, but the options already cover the basics: there's baseball, hockey, basketball, various soccer leagues and golf.

**BING NEWS:** Similar to the new sports app, Bing News' main page is crowned by a top story, though as you scroll to the right you'll see top headlines in various categories, such as business. Click the app bar up top to view news by trends, or by source. These media outlets, include a mix of newspapers and websites (ours included!) and are

broken down into categories such as technology and business. Each is accompanied by a shortcut with that outlet's icon, making it easy to spot your favorite among the bunch. We like that you can pin not just categories that interest you (politics, say), but custom topics (think: "Julian Assange").

## EXISTING METRO APPS

**WEATHER AND MAPS:** Nothing new to see here. Just the same app bar that you'll see across all the Bing apps. In Maps there's one subtle change, and it's that there used to be a dedicated search button, but now search has moved to the Charm bar (just where you'd expect it to be, frankly).

**FINANCE:** Bing's Finance app delivers the same news and stock quotes it always did, but now you can pin various bits of information to the Start Menu. These include watchlists (e.g., "Tech Movers and Shakers") or individual stocks you happen to follow. That seems like a logical feature to add — after all, every native and even third-party app should support pinning. Still, it would be nice if you could glance at the Live Tile and see General Electric's closing price for the day. We caught ourselves glancing after US markets shut down, and were met with a blank tile that had the stock's name on it and nothing more.

## WEB BROWSING

Though many of the changes here



amount to stability improvements or fit-and-finish tweaks, the Metro version of IE has actually benefited from an honest-to-goodness new feature. It's called "Flip ahead," and it uses crowdsourcing to figure out what page you're most likely to click on next. Then, instead of clicking on it, you can either swipe the screen or click the onscreen forward arrow to advance. (There will also be a corresponding touchpad gesture, but our test machine wasn't set up for this.) Interestingly, you don't need to be surfing in Bing for this to work; you can choose any search engine, so long as you're using Metro IE as a browser. The feature is also disabled by default, so you'll need to venture into Internet Options to turn it on.

So far as we can tell, the algorithm is smart, but then again, Flip ahead only seems to work in no-brainer situations. If you search for something in Bing, it knows your next click is likely to be the second page of results. (But not the top-rated item? Hmm.) Or, if you're reading a lengthy web article broken into seven different pages, the browser knows you're going to want to

move onto the second page after you've finished page one.

Beyond that, the feature doesn't come in handy often. If you're looking at something Flip ahead understands, you'll see a forward arrow on the right side of the screen. Most of the time, though, it's missing. Understandably, Flip ahead doesn't know what to recommend if you click on a site's home page, or even a tag link (next Justin Bieber story, anyone?). If you're shopping online, it won't push you toward the next dress in the collection, or even something that other customers looked at. That's not to say we're demanding this — we don't want IE making assumptions about what pair of pants we want, thank you very much. It's just that there don't appear to be many cases where Flip ahead can actually be useful.

Moving on, IE now has the Share feature baked in (it was previously in Mail, but not the native browser). That means you can share webpages with individual people and also social networks like Facebook and Twitter.

But that's not all. Internet Explorer has also received another, less visible update: both the desktop and Metro versions have Flash 11.3 built in. Since Metro IE is plug-in-free by default, Flash works without any additional setup required. (If you want to disable Flash in the desktop version, though, you'll find that option in the add-on

manager.) And in case you're wondering about Flash's diminished role on mobile devices, well, we're told it'll work with both x86 and ARM devices.

## MAIL

Microsoft admits Mail wasn't the smoothest or most complete app when it launched in the Consumer Preview, but says it's made behind-the-scenes tweaks to make it more stable. Feature-wise, users can now pin an inbox (or several) to the start screen, making it easier to differentiate between, say,

**The Metro Mail app still doesn't feel anywhere near as feature-rich as Outlook on the desktop.**

your work and personal addresses. (It doesn't make it any easier to *avoid* emails from your boss while on holiday, but who really expects you to do *that*?) Additionally, when you open the Mail app, your inboxes will be listed separately in that left-hand pane.

That's a good start, and Microsoft is right that this version of the app performs reliably — we haven't suffered a single crash or blip yet. Despite all that, the Metro Mail app still doesn't feel anywhere near as feature-rich as Outlook on the desktop. Heck, even Gmail and Hotmail are more sophisticated. And we don't ask for much, really; just

being able to view threaded conversations would be a welcome upgrade.

## MEDIA

This release hasn't brought any real cosmetic changes to the Pictures and Music apps, though Microsoft's happily gotten around to integrating Zune Pass, which means all of the cloud-based music you downloaded using your all-you-can-eat subscription will roam from one device to another.

Particularly after reviewing the latest version of Chrome OS recently, we can really appreciate that Zune Pass music can be made available offline. This doesn't exactly happen automatically, of course — you need to manually download songs and albums you think you'll want to listen to on that five-hour flight. But we're glad Microsoft remembered that feature at all. In Chrome OS, all your cloud-based music stays there — if you want anytime music, you'll have to load it on an SD card. This way is better.

Oh, and you'll want to keep this in

mind: the Release Preview is meant to mimic the Pro version of Windows unlike, well, the Consumer Preview, which means that Media Center does not come installed by default. Rather, you'll have to download it from the Windows Store. A minor inconvenience if your permanent version of Windows will be of the consumer-friendly variety.

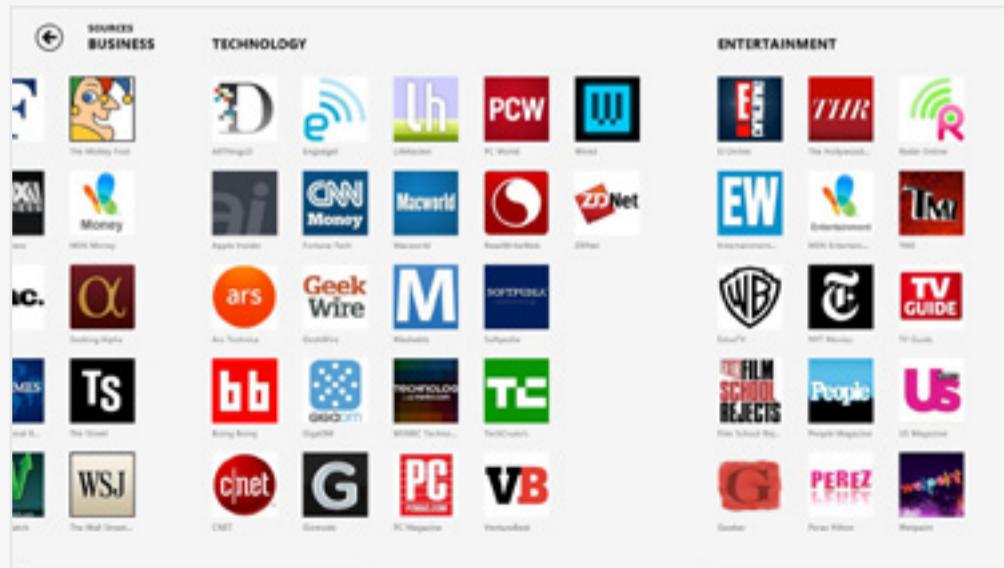
## LOCK SCREEN

Taking a cue from pretty much any mobile device ever, Microsoft rejigged the OS so that you can adjust the volume of music tracks even when your Win8 laptop or tablet is locked. Even better, you can actually pause songs or skip tracks while your device is locked up, which is more than we can say of most handsets that come through our labs.

## THIRD-PARTY APPS

It would be futile for us to attempt to review every third-party app, but as the selection grows it's worth pointing out a few big players that have been added to the list. Some highlights that just went live in the store this week: Wikipedia, *The Financial Times*, *The LA Times*, *Fruit Ninja*, Slacker Radio and Box.net.

One thing we couldn't squeeze out of Microsoft reps: an estimate of how many applications are currently on offer. All a product manager would say is that there's been



# As promised, Windows is getting some additional multi-monitor support.

“tremendous” interest from developers building all manner of apps. You heard it here first.

## MONITOR SUPPORT

As promised, Windows is getting some additional multi-monitor support in the Release Preview. Specifically, the engineers over in Redmond added the ability to drag an app across the screen and onto an external monitor, and it’ll automatically park itself there, no tweaks to the settings needed. If you move an application, the pinned shortcut in the taskbar will move to the monitor as well, since the desktop is extended, though, you can also choose to clone pinned apps so that they appear on both your PC and secondary display.

It’s also worth noting that both your PC screen and external monitor have four “hot corners,” which means even if you’ve extended your desktop, you don’t need to drag your cursor all the way to the edge of your 20-inch display in order to pull up the Charms bar on the right. You can do that just by moving to the right end of your PC’s screen, even if that’s technically no longer where your desktop ends.

Although you don’t need to adjust any settings to drag individual apps onto secondary screens, you will have to specify if you want your *desktop* and accompanying wallpaper to extend, or if you’d rather just mirror it.

## TOUCHPAD GUIDELINES

By the time Windows 8 launches, most touchpads will be optimized to support all the native Win8 gestures — swiping to expose the Charm bar, etc. Behind the scenes, Microsoft is still engaged in quite a bit of back-and-forth with trackpad makers like Synaptics, and we’ve yet to see a final product, but for now we know this much: touchpads will be subject to guidelines, at least if they’re to support Windows 8 gestures (and why on earth wouldn’t they?). In particular, these rules will dictate how sensitive a touchpad should be, and how small it can get before it becomes too cramped to comfortably pull off gestures. Alas, though, this feature wasn’t enabled on our test machine (a new Samsung Series 9), so we didn’t get to try this out.

## ETC.

Other than all that, you’ll notice a bunch of tiny changes as you poke around. The lower-right corner of the screen now says “Change PC settings” instead of “More PC settings.” Dig inside those menus and you’ll see there are more color themes to choose from. It’s obvious Microsoft had a long checklist of things to sort out, and simply



didn't get to all of them in time for the Consumer Preview launch.

## WIDER AVAILABILITY

For starters, the Windows Store will now be available in 13 languages, including Arabic, Chinese (traditional and simplified), English, French, German, Japanese, Korean, Portuguese, Russian, Spanish, Catalan and Swedish. Further, Microsoft will accept app submissions from 38 countries, up from five.

## WRAP-UP

When are new apps and performance enhancements *not* welcome changes? As you'd imagine, the Windows 8 Release Preview is an improvement over the previous milestone, though none of these additions fundamentally change the user experience. For better and

worse, this is the same OS you've been getting to know: it brings the same gestures, the same slick animations and the same learning curve. If you were expecting the Start button to reappear in this more final version, you'll be sorely disappointed. But if you already warmed to the Consumer Preview, you might appreciate how relatively polished this version is: sharing and pinning are more prevalent, Zune Pass integration has arrived and key apps like Mail run more smoothly. And hey, a Charlotte Bobcats live tile never hurt anyone, right? D

*Tim Stevens and Zach Honig contributed to this preview.*

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*Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.*

## LENOVO THINKPAD X230



**The ThinkPad X230 stays true to its roots while boosting its core specs, but will the small changes make it or break it for hardcore fans?**  
By Dana Wollman

**M**ay 31, 2012 was the day Intel finally revealed specifics on its dual-core Ivy Bridge processors. That means the month of June is going to be teeming with new laptops, many of them packing Intel's latest chips. Lenovo's 12-inch ThinkPad X230 is now one of them as of its June 5th sale date, and it happens to be the first machine we've tested with one of Intel's dual-core-flavored CPUs. But make no mistake: the X230 brings more than just a speed bump. With this generation, Lenovo overhauled its signature keyboard, opting instead for an island-style lay-

out with wider-spaced keys. Rounding out the list is a 300-nit IPS display, a battery rated for nine hours of runtime and, of course, that brand-new Core i5-3320M CPU. So how much better is the performance? Is it a good deal for \$1,249? And what to make of that revamped keyboard? Let's find out.

## LOOK AND FEEL

If you think the ThinkPad design is dated, stale or uninteresting, you're reading the wrong laptop review. The X230 is intended just as much for IBM loyalists as first-time buyers, and to its credit, Lenovo knows well what its customers like. With the lid shut, the X230 looks a lot like last year's X220, which in turn resembles years' worth of ThinkPads that came before it. That is to say, it has a boxy shape with sharp corners and a black, soft-touch lid. Where other PC makers are pushing a spartan sort of look, Lenovo is still studding its laptops with physical mute, volume and mic controls, as well as a hotkey for launching the bundled ThinkVantage suite. And, like the X220 that came before it, the X230 has a latch-less lid, with a little overbite that fits securely over the front lip. All told, these touches add up to a design that's not sexy, per se, but timeless.

While the X230 follows the same design principles as its predecessor, we'd be remiss if we didn't point out that it's both thinner and lighter: 2.96 pounds and 0.75 to 1.05 inches thick.

In comparison, the X220 weighs 3.3 pounds and measures 1.25 inches deep.

As we continue our tour around the laptop, you'll see that although the chassis is thinner, Lenovo still managed to squeeze in a few new ports. The left edge is home to two USB 3.0 sockets (you could add one as an option last year), along with a mini-DisplayPort (also new), VGA, a 54mm Express Card slot and a wireless radio switch. Meanwhile, the right side houses a Kensington lock slot, 4-in-1 memory card reader, a powered USB 2.0 port, headphone jack and Ethernet connection. There's also a Smart Card reader option. Inside,

The timeless design of the ThinkPad laptop exterior.



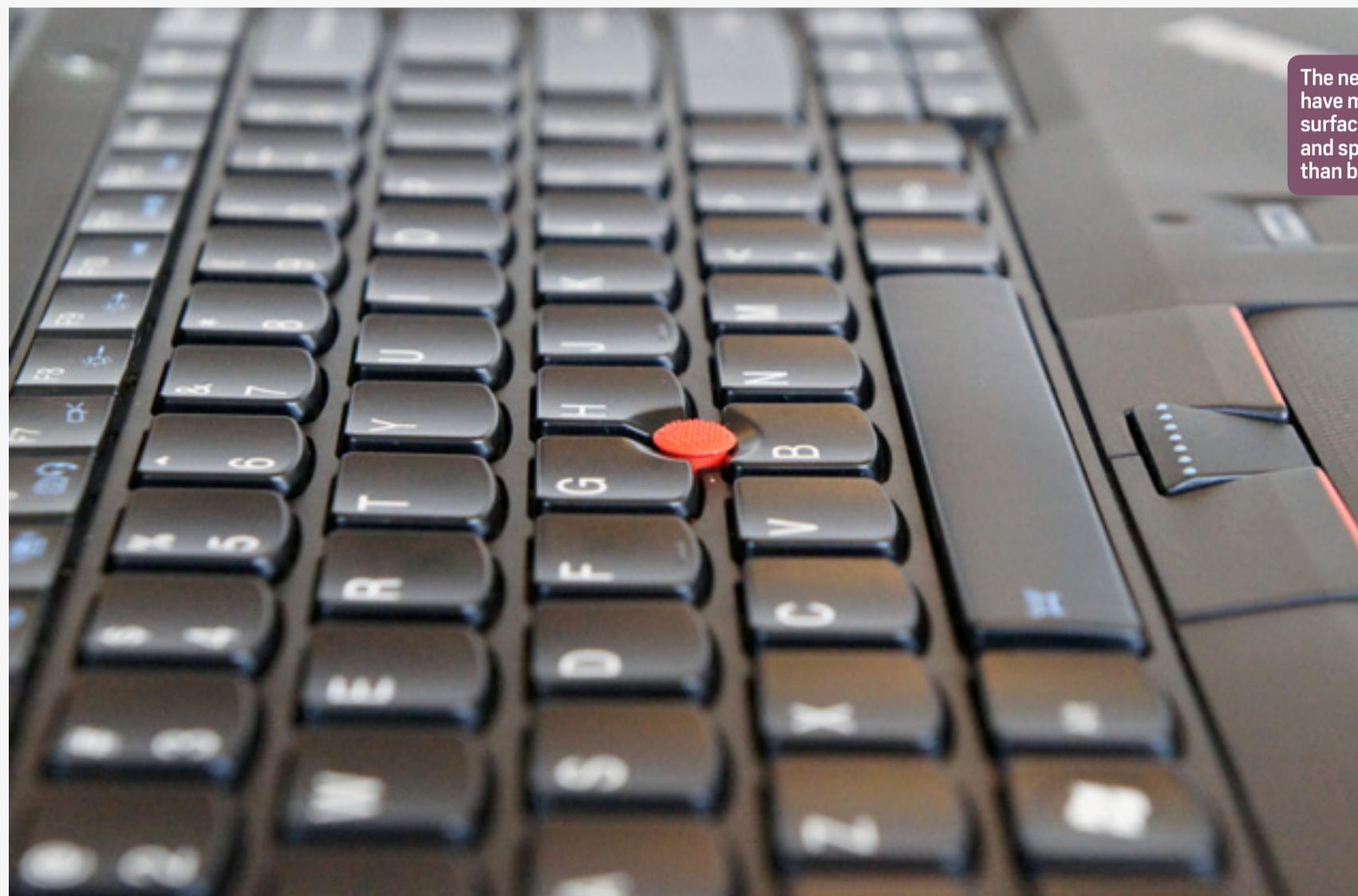
Lenovo's "Airbag Protection" technology guards the drive in the event of drops. Where's the AC port, you ask? It's tucked onto the back edge, potentially allowing for some more discrete cable management. Lastly, there's still a fingerprint reader sitting to the right of the touchpad.

## KEYBOARD AND TRACKPAD

Although the X230 looks like the X220 at first blush, you only need to lift the lid to realize this upgrade is more than just a processor refresh. With this generation, Lenovo's added some subtle backlighting, and moved from a classic, seven-row keyboard layout to a six-row, island-style arrangement. Interestingly,

this is just the second ThinkPad after last year's X1 to get the chiclet treatment. Of course, the company's been experimenting with similar keyboards on its Edge lineup for years, though we're told the keys here are slightly different from even those models.

Specifically, the keys each have 30 percent more surface area on top than the old-school keys on the X220, and the spacing is five times greater. In any case, the keys have a so-called Smile shape, with a curved lower edge and slightly indented surface for cradling the fingertips. Additionally, the page up/down buttons are slightly bigger, and are now clustered with the arrow keys, instead of the area above





the Backspace button, where they used to sit stacked on top of one another. To turn the backlighting on and off, there's now a control built into the left end of the space bar, which only works if you also hold down the Fn button. Last but not least, Lenovo claims to have improved both the tactile and sound feedback.

Truth be told, we never had a problem with the sound or forcefulness of previous ThinkPad keyboards, but this one is certainly as sturdy as promised. The entire panel stays infallibly rigid, even under the weight of furious typing. And if you're the kind of person

who equates keyboard noise with productivity (or who simply gets nostalgic for tactile things), we think you'll find the low-pitched *clack* quite reassuring. Even so, we can't promise that ThinkPad fans set in their ways will take kindly to this new keyboard. If you review laptops for a living, like yours truly, you might appreciate the tactility of these keys, especially compared to the flat, flimsy keyboards you'll find on most other ultraportables on the market. But when we handed the X230 to Tim Stevens (a ThinkPad fanboy in his own right), he deemed the keys stiff and too widely spaced compared to his trusty T400s. This is the rare case where a "new and improved" keyboard could be a pro or a con, depending on your tastes.

As you'd expect — this being a ThinkPad and all — you've got a variety of different navigation options at your fingertips, including a touchpad with buttons, as well as that signature red pointing stick. So far as we can tell, Lenovo hasn't strayed from its tried-and-true pointer, which is to say it has a flat top, wide enough to accommodate most digits. As ever, the rubbery material and series of raised dots make it unlikely that your finger will unexpectedly slide off. To be sure, there's a bit of a learning curve for ThinkPad converts, but once you find your bearings you'll enjoy some exceptionally controlled cursor navigation — arguably even more precise than what you'll experience if

you use the touchpad.

In case you're more of a touchpad person, the main obstacle you'll encounter here are the small dimensions. There's not nearly enough room to comfortably pinch to zoom, though the pad is certainly capable of this. Two-finger scrolls aren't flawless, but they're still smoother than what most other Windows PCs have to offer. Otherwise, the pad works as promised, and without fuss: it responds well to simple one-finger taps, and cursor movement is generally fluid.

## DISPLAY AND SOUND

Here's something Lenovo had no reason to change. The 12.5-inch, 300-nit display that we loved so much on the X220 is back — albeit, with the same ho-hum 1366 x 768 resolution. And it's not just that it's a matte panel, though that'll certainly help fight glare from harsh overhead lights in the office; the IPS panel also ensures that colors don't wash out as you adjust the screen angle. Even when we dipped the screen forward or pushed it back, we were able to continue reading websites and other pages densely packed with text. It even lies flat, though we're not sure why you'd want to work that way (this isn't the touch-enabled X230T, after all). In any case, this all bodes well for "Up in the Air" types who plan on working through long flights, and need to stay productive even when the guy in front



**The IPS panel bodes well for "Up in the Air" types who plan on working through long flights, and need to stay productive even when the guy in front of them leans back in his seat.**

of them leans back in his seat. If we have one complaint it's that the LCD matrix is very prominent, and is difficult to un-see once you notice it.

The X230 also includes Intel's Wireless Display technology (WiDi), which allows you to mirror your desktop on a TV or external monitor, no cables required. Normally, when we explain this feature in laptop reviews, we tend to talk up the potential for streaming 1080p video from your PC to the big screen. In the case of the X230, though, it's worth reminding road warriors you can just as easily use the technology to send your PowerPoint presentation to a display

where it's easier for everyone to have a look. Whatever your preferred use case, you'll need to buy a separate set-top box, which connects to your TV / monitor via HDMI. We've been consistently impressed by both the ease of setup and the unbroken streaming quality.

With this generation, Lenovo switched to Dolby Advanced Audio and added some new face-tracking technol-

ogy for video chats. Though the speakers deliver some typically constrained, tinny sound, the audio is surprisingly loud, at least, which should come in handy for your conference calls.

## PERFORMANCE

For the purposes of this review, we tested a \$1,249 configuration with a 2.6GHz Core i5-3320M processor, 4GB of RAM

LAPTOP	PCMARK VANTAGE	3DMARK06
<b>LENOVO THINKPAD X230 (2.6GHZ CORE I5-3320M, INTEL HD GRAPHICS 4000)</b>	8234	4891
<b>LENOVO THINKPAD X220 (2.5GHZ CORE I5-2520M, INTEL HD GRAPHICS 3000)</b>	7635	3517
<b>ASUS ZENBOOK UX21A (UNSPECIFIED IVY BRIDGE PROCESSOR WITH INTEGRATED GRAPHICS; SOME SPECS EMBARGOED UNTIL ASUS FORMALLY LAUNCHES ITS ZENBOOK PRIME SERIES IN THE US AND OTHER MARKETS.)</b>	10333	4550
<b>DELL XPS 13 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	N/A	4130
<b>HP FOLIO 13 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	6701	3387
<b>TOSHIBA PORTEGE Z835 (1.4GHZ CORE I3-2367M, INTEL HD GRAPHICS 3000)</b>	5894	3601
<b>LENOVO IDEAPAD U300S (1.8GHZ CORE I7-2677M, INTEL HD GRAPHICS 3000)</b>	9939	3651
<b>ASUS ZENBOOK UX31 (1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)</b>	10508	4209
<b>ACER ASPIRE S3 (1.6GHZ CORE I5-2467M, INTEL HD GRAPHICS 3000)</b>	5367	3221
<b>13-INCH, 2011 MACBOOK AIR (1.7GHZ CORE I5-2557M, INTEL HD GRAPHICS 3000)</b>	9484	4223
<b>2011 SAMSUNG SERIES 9 (1.7GHZ CORE I5-2537M, INTEL HD GRAPHICS 3000)</b>	7582	2240

and a 320GB 5,400RPM hard drive. As you can see in the comparison table, the X230 offers a nice boost over the X220 in both graphics and all-around performance. Of course, without an SSD it doesn't quite match the performance you'll get from some top-of-the-line Ultrabooks, but it easily bests machines with last-generation Core i5 processors and either traditional or hybrid hard drives. In the disk benchmark ATTO, it performed respectably with peak read *and* write speeds of 96MB/s. We also timed a 37-second start-up, which is a bit faster than most Windows 7 laptops (those that aren't Ultrabooks, anyway). It does rival Ultras in this regard, at least: it resumes from sleep in less than two seconds. We also noticed the machine stayed relatively cool and quiet throughout — two things Lenovo says it tried to improve when designing the X230.

## BATTERY LIFE

Lenovo rates the X230's six-cell battery for up to nine hours of battery life using the benchmark MobileMark, which is more productivity-focused than the test we use. In our test, we managed six hours and 15 minutes, and that's under rather taxing conditions: WiFi on, brightness fixed at 65 percent and a movie looping continuously off the hard drive. That's certainly a better showing than what we've seen from most other ultraportables we've tested recently — namely, Ultrabooks. And it's an especially impressive performance for a

LAPTOP	BATTERY LIFE
LENOVO THINKPAD X230	6:15
15-INCH SAMSUNG SERIES 9 (2012)	7:29
LENOVO THINKPAD X220	7:19
HP FOLIO 13	6:08
TOSHIBA PORTEGE Z835	5:49
ASUS ZENBOOK UX31	5:41
13-INCH, 2011 MACBOOK AIR	5:32 (MAC OS X) / 4:12 (WINDOWS)
HP ENVY 14 SPECTRE	5:30
LENOVO IDEAPAD U300S	5:08
14-inch Samsung Series 5 Ultrabook	5:06
Dell XPS 13	4:58
Samsung Series 9 (2011)	4:20
ASUS Zenbook UX21A	4:19
Acer Aspire S3	4:11

machine with such a small screen; the new 11-inch ASUS Zenbook UX21A, for instance, lasted little more than four hours in the same test.

Interestingly, Lenovo says that under the same testing conditions we use, its internal testing team got similar battery life scores for both the X230 and the X220, with the X230 lasting roughly six and a half hours. That dove-

tails nicely with our own test results for the X230, though when a different Engadget staffer tested the X220 last year, it held out an hour longer. What's curious is that even Lenovo's own engineers couldn't replicate that result — at least not with a test that involved looping video. So while our performance table tells one story, Lenovo's own product managers claim the battery capacity is actually comparable. We're inclined to believe that claim, since early Ivy Bridge benchmarks already suggested there's not a material difference in battery savings between the current and last-generation chips.

Like its predecessor, the X230 will be offered with an optional slice battery — in this case, a six-cell (57 Wh) number for \$149. That promises up to 24.9 hours of runtime, but that's assuming your main battery is the beefier nine-cell.

## SOFTWARE

The last-gen X220 came loaded with a pristine desktop, and we're happy to

If you're a ThinkPad loyalist set in your ways, we suggest getting hands-on in person first, if possible.

say Lenovo is continuing its goodwill this year: you'll find barely any shortcuts littering the screen when you boot up the X230 for the first time. Dig into the menus, though, and you'll find a handful of innocuous third-party apps installed. These include Google Chrome, SugarSync Manager and Evernote. Even the 30-day trial of Norton Internet Security mostly stayed out of our way.

If anything, most of the pre-installed apps are part of Lenovo's own suite of ThinkVantage utilities, designed to make the upkeep easy even for businesses that don't have a dedicated IT department. Among them, you'll find a backup and restore app, a setup wizard for the finger-print reader, password vault, power con-



trols, diagnostic software and a system update hub. Though most of these come pre-loaded and ready to go, you'll have to manually install the following three: Rescue and Recover, Password Vault and Access Connections. Lastly, Lenovo also pinned a shortcut for its App Store to the Taskbar, though we didn't spend much time there, as the store runs slowly.

Like other ThinkPads, the X230 comes with Lenovo Simple Tap software, a launcher that gives you quick access to microphone controls and other settings in the form of large icons. Once you've launched Simple Tap, it runs at full-screen, almost like a dumbed-down mini-OS-within-an-OS. Though it's at its best on touch-enabled machines where you can actually tap the shortcuts, it's perfectly easy to click on them instead, and use the cursor to rearrange the tiles.



The X230 shows off its flexibility in the display hinge area.



## CONFIGURATION OPTIONS

The X230 starts at \$1,249, the same estimated price of the configuration we tested. Depending on your region, you'll be able to find the X230 offered with up to five processors in addition to the 2.6GHz Core i5 CPU we tested. These include one Core i3 option (a 2.4GHz 2370M), two i5s (2.5GHz 3210M and 2.8GHz 3360M) and two i7s (a 2GHz 3667U and a 2.9GHz 3520M). As any silicon buff would tell you, this means everything but the Core i3 CPU are part of the Ivy Bridge family. (We know the i3 option is Sandy Bridge because its model number begins with a "2" instead of a "3.")

Once you've got the processor squared away, you can load your machine with up to 16GB of RAM and choose between a 200-nit screen and the 300-nit one we tested. As for storage, you have a few traditional spinning hard drives at your disposal, running the gamut from a 5,400RPM HDD with 320GB or 500GB of storage, to a faster 7,200RPM drive with anywhere from 250GB to 500GB of space. You can also buy a solid-state drive with 32GB, 128GB, 180GB or 256GB of space.

As we mentioned, we tested a six-cell, 63 Wh battery, rated for 9.9 hours, but you can also opt for a 29 Wh four-cell (up to 8.9 hours) or a 94 Wh nine-cell, which promises to last up to 14.8 hours on a charge. Finally, if you're interested in built-in 3G /



4G, you can upgrade to a Gobi Verizon Wireless LTE / HSPA radio, a Gobi HSPA option capable of 14.4 Mbps or an Ericsson-made HSPA+ minicard.

## THE COMPETITION

Thanks to Ultrabooks, the ultraportable market is a lot more crowded than it was a year ago, but, luckily for all of you who freeze under the pressure of having too many choices, most of these models are consumer-grade. If a more business-friendly feature set is a must, there's the HP Folio 13 (an Engadget favorite) and the Dell XPS 13. Both of these offer TPM and a generous selection of ports, but lack the kind of self-service troubleshooting software you'll find on ThinkPad machines. The HP EliteBook Folio also looks promising, but it won't ship until October, and we're guessing you can't wait that long for a new laptop.

Even more than these Ultrabooks — which walk a blurred line between

consumer-and business-grade — the X230's most direct competitor might be something like the EliteBook 2570p, which goes on sale June 22nd starting at \$1,099. Since it's not available yet, we don't have a full picture of what specs will be offered, but we do know it'll weigh a slightly heavier 3.6 pounds. Like the X230, you'll be able to fit it with a built-in LTE radio, but it differentiates itself with an optical drive, which the X230 is missing.

If you can hold off on pulling the trigger, we'd also wait and see if Dell has anything fresh up its sleeve: 'tis the season for laptop refreshes, after all, and we wouldn't be surprised if the company unveiled some new products in the near future.

If you're on a budget, there's always the 3.2-pound Toshiba Portege R830, which starts at \$650. The catch? It's getting long in the tooth, which is to say it's running all Sandy Bridge processors. At the entry level you get a

Core i3 CPU, 4GB of RAM and a 500GB 5,400RPM drive and goes up to a Core i7 CPU, 4GB of RAM and 128GB SSD — a combination that'll cost you \$1,649. As always, Toshiba is offering models for a higher price: \$949 and up.

## WRAP-UP

Depending on who you ask — a ThinkPad diehard or a notebook agnostic — the X230 either has little wrong with it, or it has one inexcusable flaw. Starting with the good, it's fast, thanks to its spanking-new Ivy Bridge processor. It's thinner than its predecessor, but still lasts six-plus hours on a charge. And that bright IPS display translates to impressively versatile viewing angles. The problem? Lenovo, a company known for its ergonomic know-how, decided to overhaul its signature keyboard, and replace it with a new-fangled island-style arrangement. Coming from us, a site

that's had the chance to review most every ultraportable that's hit the market, we can assure you these are some of the sturdiest, most tactile keys you'll find on a laptop this size.

Still, something tells us this could be a dealbreaker (or at least a sour grape) for grumpy ThinkPad fans who liked the old keyboard the way it was. If you're thinking of switching to Lenovo from some other brand, we have a feeling you'll enjoy the X230, and won't have as much of a learning curve when it comes to typing. But if you're a ThinkPad loyalist set in your ways, we suggest getting hands-on in person first, if at all possible. Some of you might walk away, others might begrudgingly give it a whirl. And some of you, perhaps, might even come around. 

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*Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.*

## BOTTOMLINE

### LENOVO THINKPAD X230

**\$1249+**



#### PROS

- Long battery life
- Solid performance
- Bright IPS display
- Sturdy, tactile keys

#### CONS

- Overhauled keyboard might not appeal to long-standing ThinkPad fans

#### BOTTOMLINE

Lenovo's latest business ultraportable offers fast performance, long battery life and a bright display, but its overhauled keyboard might be a dealbreaker for ThinkPad fans set in their ways.

## SONY NEX-F3



The **NEX-F3** flaunts a bigger build and a touch of flash, but does this newest NEX best its C3 brethren?

By Zach Honig

**J**ust shy of a year ago, we reviewed the Sony NEX-C3, a mirrorless camera that quickly became our benchmark when it came to entry-level interchangeable lens cameras (ILCs). We praised its excellent image quality, generally consistent performance, overall solid design and, best of all, its \$600 price tag — including an 18-55mm kit lens. Since then, the landscape has shifted drastically for this particular type of compact shooter, with the Olympus OM-D E-M5 raising the bar for focusing performance, Nikon's

cute J1 winning the hearts of many (likely due to a heavy marketing budget and adorable design) and the Fujifilm X-Pro1 pushing the envelope when it comes to price and body size. For its part, Sony also attracted plenty of attention with its flagship NEX-7, which appears to have been the inspiration for the company's brand new NEX-F3.

Based on its price tag and release schedule, you might have assumed that the NEX-F3 is here to dethrone Sony's NEX-C3. That may or may not be the case (we're hoping for the latter) — the F3 is much more a scaled-down version of the NEX-7 than an update to the C3. Sure, designs can change drastically from one year to the next, but we were quite fond of last year's model, and many of you were, too. From a specification perspective, the F3 has a new APS-C sensor (though resolution remains unchanged), with a higher top ISO setting of 16,000, a 3-inch LCD that can flip 180-degrees to face completely forward, a new NEX-7-esque pop-up flash and a bulkier design. But does bigger mean better in this case?

## HARDWARE

Sony received a bit of heat for the size of its NEX-C3. That concept may be a bit hard to grasp, given that the camera is on the small side, even for mirrorless ILCs. However, the device looked quite petite when paired with the company's standard 18-55mm kit optic, and may have been difficult to grip for some giant-

handed users. The F3 looks much more proportionate with the lens attached, but that also means a less svelte appearance — you might even consider it to be a step back, from a design perspective, at least.

That larger housing does come with extra benefits in tow. There's a new pop-up strobe, located on the top panel, just to the right of the lens mount. The flash works just fine — it's elevated enough to project beyond the standard kit lens with hood removed — and considering the camera's top sensitivity of ISO 16,000, it'll probably come in handy more as a fill flash than it will as a dedicated light source. Beyond the added flash release button, control placement has remained unchanged for the most part, with the exception of the shutter release (now on the extended front grip), the playback button (located to the left of record) and a new dedicated power toggle — the same control that you'll find on the NEX-5N, which should help to eliminate issues we experienced with the C3, where it would power on accidentally while in a bag.

Also up top is Sony's proprietary connector, which supports older accessories like the external shotgun mic, along with recent additions, like the \$350 OLED viewfinder attachment that we first saw as an option for the NEX-5N. On the left side of the camera, there are micro-USB and HDMI ports, followed by a tripod socket, SD/MS slot and battery compartment on the bottom. Unlike the NEX-5N, there are separate doors for storage and

The F3's 180 degree flippable LCD and it's pop-up flash.



power here, but the memory card slot is just to the side of the tripod socket, making it impossible to swap cards when the camera is mounted on a tripod.

As you may have guessed from the price tag and optional attachment, there's no built-in EVF here. There is a fairly sharp 3-inch LCD on the rear, however, with the same 921k-dot resolution found on the NEX-C3. Like its predecessor, the F3's display is mounted on a tilting hinge, but this year's model has been completely redesigned, with a brand new fixture. The new mechanism enables you to flip the LCD completely forward (180 degrees)

— for taking self-portraits, we presume. Unfortunately, such functionality came at significant cost, with Sony eliminating the 45-degree down-facing mode, which we used quite often on the NEX-C3 for capturing overhead shots. You can still tilt the new display down, but only by about five degrees, which won't help much. Viewing angles are decent at best — you can forget about seeing the display clearly at a 45-degree angle in bright sunlight.

## PERFORMANCE AND BATTERY LIFE

Like its price tag, the NEX-F3 finishes in the middle of the road when it comes to performance. It won't be your first choice for the NFL sidelines, with a top continuous shooting speed of 5.5 frames-per-second and a focusing system that can't hold a candle to the Olympus E-M5 (or any full-size DSLR, for that matter), but if you're an amateur photographer on a budget looking to capture family fun, the F3 will do just fine.

One issue we continue to experience with the C3 is focus hunting during video capture, which seems to be less of a concern with this year's model. The F3 may take a second or two to make your subject sharp, but once it does, you should be able to move the camera slightly without prompting the lens to shift focus as you record a clip. We did experience some inconsistencies during still shooting, however, with the camera confirming focus and snapping a frame even though the image was completely blurred. You can

work around this issue by simply forcing the F3 to refocus before pressing the shutter release the rest of the way, but it's an annoyance nonetheless.

**Sony has upped the video capabilities with the F3, adding 1080/24p and 1080/60i AVCHD options, as well as a 1440 x 1080 mode in MP4.**

Sony has upped the video capabilities with the F3, adding 1080/24p and 1080/60i AVCHD options, as well as a 1440 x 1080 mode in MP4. There's also a VGA capture option, though the company removed the 720p modes that we've grown to love on the NEX-C3, leaving only the aforementioned selections for HD shooting. As we've already covered, the focus hunting we experienced with the C3 appears to have been corrected here, so that should bring some relief to video shooters. Overall, video looks just fine and audio is clear, especially with the optional shotgun mic attached.

All of the NEX cameras we've used have offered excellent battery life, and that's still the case here. The F3 ships with the NP-FW50 battery pack, which

offers a capacity of 1,080mAh and dates back to the very first NEX models that launched in June 2010. That means you can swap batteries and chargers with other cameras in the series, beginning with the NEX-3 and NEX-5. In fact, based on the condition of the battery that shipped with our review sample, it appears that Sony has done just that, sending on an older power pack. Despite the battery's appearance, performance didn't take a hit — we were able to snap nearly 1,000 frames, including several multiple-exposure HDR shots with a single charge, along with more than 10 minutes of HD video.

## IMAGE QUALITY

As with the NEX-C3, image quality is in line with what you'd expect from a \$600 mirrorless camera — it's not the best we've seen, but it's far from the worst. The F3 boosts the top sensitivity from ISO 12,800 to 16,000, which should provide a negligible bump in versatility for low-light shooting. While high-sensitivity images appear with significant noise on the LCD — perhaps as an artificial warning to rookie shooters — the entire ISO range is perfectly usable for web placement, though you'll want to stay at ISO 3,200 or below for all your billboard-printing needs. We also didn't notice an improvement compared to the C3, so if you're looking for a reason to upgrade, that wouldn't be it.

We spent the majority of our shooting time with the F3 set to the new Superior

DISTRO  
06.08.12

# SONY NEX-F3

REVIEW



Intelligent Auto can take the settings workload off your hands.





Auto mode (more on that later), which resulted in some slightly over-saturated and contrasty images. Generally, the ILC did an excellent job of exposing, focusing and selecting the appropriate white balance (almost all images were shot with AWB). Video also appeared natural, with acceptable exposure, color balance and sharpness.

## USER INTERFACE

For better or worse, the user interface has seen almost no change since last year's NEX release. The most significant settings menu addition is probably a new camera icon that more closely represents the size and shape of the F3, compared to the C3's menu, which displays a mock-up of that model instead. The lack of major UI changes means initial setup and settings adjustments will still require a bit of digging, but once you configure your three custom buttons (to control frequent settings like white balance and ISO), you'll seldom need to jump into the main menu.

There's a traditional auto mode, and then there's a super auto mode that gives the camera a bit more creative control.

Another UI addition is a second auto mode. There's the Intelligent Auto mode, which we've seen on previous NEX models, along with an additional mode called Superior Auto. According to the Sony menu description, this new option "enables a wider range of shooting settings than Intelligent Auto including automatic scene detection, auto HDR and image saving," compared to Intelligent Auto, which simply "automatically identifies the scene's characteristics and shoots a photo." So, there's a traditional auto mode, and then there's a super auto mode that gives the camera a bit more creative control.

These are in addition to the Scene Selection mode, which lets you dictate some settings, rather than leaving it up to the camera to determine that your landscape scene needs to be shot in Landscape mode. Overall, both modes worked just fine, though we'd prefer to make the call to snap a multi-frame, HDR image on our own, especially considering there's little

warning from the camera beyond the clearly audible triple-fire.

## THE COMPETITION

There's an excellent Sony ILC priced at \$600. But it's not the NEX-F3. The NEX-C3 packs nearly identical performance, but with a more compact, sleeker design and an LCD that tilts downward for overhead shooting. It doesn't include 1080p video capture or an option to shoot at ISO 16,000, but if you can get by with 720p and ISO 12,800 — and no built-in flash — we find little reason to skip over last year's model. If you can't get your hands on a C3, the NEX-5N would also be a solid choice, with a smaller build and comparable feature set.

If you're dying to best the C3's performance, this may be the time to exit the Sony ecosystem.

If you're dying to best the C3's performance, this may be the time to exit the Sony ecosystem. The NEX-7 is a fine shooter, but it's pricey and doesn't come without faults of its own. The Olympus E-M5 is worth considering, if incredibly speedy performance is more of a priority for you than video shoot-

ing (focus hunting is the issue there, from our experience). The Panasonic Lumix DMC-GX1 is also a solid shooter, and we're quite fond of the matching (though pricey) 14-42mm X-series optic, thanks to its performance and compact size. That camera also includes a pop-up flash. Both the E-M5 and GX1 feature Micro Four Thirds mounts, making them compatible with dozens of lenses from a handful of manufacturers.

## WRAP-UP

The NEX-F3 is an excellent mirrorless ILC, but it's not the best entry-level camera — not even from Sony. There's





The F3 and C3 lose the lens and give you a look inside.

little here to push us to make the jump from the company's NEX-C3, which we find to be the better option, even at the same price (we're told to expect C3 price reductions beginning next month). If you're considering picking up an F3, you'll likely be best served by the camera's predecessor, which you may even be able to pick up at a dis-

count. Even at \$600, however, we find the C3 to be the better buy, and continue to stand behind it as one of the category's top values. ▶

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*Zach is a Senior Associate Editor and heads up Engadget's features content. He's also a lifetime lover of everything aviation and photography.*

#### BOTTOMLINE

## SONY NEX-F3 \$599.99



#### PROS

- Built-in flash
- Fantastic battery life
- Excellent image quality
- Low suggested retail price

#### CONS

- Bulkier design
- Few improvements over NEX-C3

#### BOTTOMLINE

Sony's NEX-F3 is one of the top buys in the mirrorless category, but fails to best its predecessor.

For 27 years, he ate what he wanted and avoided exercise like the plague. Can an arsenal of fitness gadgets make this human healthier in just eight weeks?

By Daniel Cooper



**FROM THE SNAKE OIL SALESMAN** to the Thighmaster, science and technology have promised the end of obesity, ill health and lethargy for centuries. Today, weight loss gadgetry is all around us, with affordable commercial systems available from Nintendo, Nike, Adidas and countless other manufacturers, all vowing to turn us into paragons of healthy virtue. How is it then, that for all of this, we live in an age where a quarter of the American population is obese?

Do any of these seemingly endless health aids actually work? Will a \$200 wristband or a \$100 pedometer cause you to banish microwave dinners and saturated fats, take up regular exercise at the gym at least three days a week and sleep well with no bad dreams? Or has the health industry made technology another ineffective distraction



Before this experiment, many of my encounters with technology involved eating them in cake form.

that only provides you with a vague sense that you're doing something positive? Is the real answer what it's always been: go for a walk in the trees and eat your greens?

## THE CHALLENGE

I'm 27 years old, 5 feet 11 inches tall and I weigh 239 pounds (108.4 kg). A typical day on the job for me is spent sitting at a desk, eating junk food and chugging caffeine like it's going out of fashion. Unsurprisingly, I'm tremendously obese, but then I always have been. Perpetually vacillating adipose tissue hangs from my every limb and has done so since I was a child — it's been the source of poor self-esteem, bullying and depression. I don't go out in the summer, I wear a wardrobe of predominantly black clothes and I wake up in the middle of the night with heart palpitations. It's also entirely my own fault: when I was young, I condemned exercise as the pastime of those too stupid to read — my regular sick-note forgeries got me out of gym class so I could spend more time with my head in a book. Unfortunately, it's become apparent that I've got the body of a middle-aged man on an express train towards type 2 diabetes and other weight-related maladies.

Next month, I'm getting married, and I want to arrive on the big day having made a change to my life, and so my poor spouse-to-be doesn't wind up living with an oleaginous troll for the next few decades. I've tried everything under the sun to make the change beforehand, and now it's time to see if technology can succeed where every faddy diet and pill couldn't. I've got eight weeks before the suit fitting to try, and I'll give one device or program a go each week. So, can an arsenal of fitness gadgets really make me fitter, happier and more productive?

## WEEK ONE:

### NINTENDO WII FIT

108.4KG / 239 LBS

I begin where I'm sure many others have too. In fact, since nearly 23 million editions of Nintendo's Wii Fit have been



## FIT GEAR

The “Balance Board” is a pressure-sensitive scale that identifies shifts in weight. Drawing inspiration from the Jane Fonda exercise videos of the ‘80s and the Party series of Nintendo games, the hardware is able to sense your rudimentary position and provide feedback, often in the form of a score.

sold since 2008, I’d be willing to bet plenty of people bought it specifically to help them lose weight. So, can a \$250 console bundle supplant the need to attend an \$80-a-month gymnasium? It’s certainly notorious for inspiring countless academic studies and websites, and the thrust of the company’s advertising budget has been devoted to selling the idea that this is all you need to transform you from dumpy drone into Charles Atlas.

After firing up the console, I undergo the Body Test, measuring my height and weight to give me my Body Mass Index (BMI). Once discovered, my slender, anonymous avatar balloons into a bow-legged, morbidly obese Mr. Creosote before the game offers me pseudo-scientific advice about my balance and posture, saying that ensuring you stand with perfect balance is both healthier and more

attractive than leaning to one side. Each day, I try to cover a good variety of the mini games on offer, alternating between the cardiovascular, rhythm, balance and yoga / muscle plans before capping them off with a 10-minute free jog. Yes, that does involve jogging on the spot, and no, I don’t do it with the curtains open. Sadly there’s a problem: the pace is so slow that I’m not benefiting much, because my pulse isn’t increasing. If I want to go a little faster and get more out of it, the quickened pace causes my avatar to fall over and the game exhorts me to take it easy. Suffice to say, I’m not actually doing much exercise.

The frustrations don’t stop there. The mini games all take time to begin, with a repetitive intro and outro book-ending each one. In isolation, it’s like a sampling platter so the introduction is handy to get you reacquainted with the rules. Using it as a fitness tool, however, is nearly impossible, as the tedious series of stops and starts saps your motivation in minutes. More annoying is that the balance board re-calibrates before Every. Single. Game. It assumes you’re standing perfectly in place between games, rather than idly shifting from side to side or attaching or remov-

ing the nunchuk peripheral. Because of this, you're rarely in the place you're meant to be, meaning the game that follows is too compromised to play properly (if you rested your weight on your left foot for a nanosecond, you'll find it impossible to stand straight in the game) or worse — you'll injure yourself as you overcompensate for its failure.

During the week, I find myself coming up against this same brick wall of engagement: very few of the three-minute games were of sufficient intensity to get my heart going (necessary for optimal weight loss and exercise) and it doesn't even provide a sense that I'm making a good choice. Instead, it felt like a passing attraction that lacked the necessary depth that it promised and left me unmotivated. I was glad to box it away, even if I was ruing the purchase.

## WEEK TWO:

### ZEO SLEEP MANAGER

108KG / 238LBS



Sleep isn't something I'm very disciplined about, and spending most nights with a throbbing chest isn't helping. Waking up's never been a strong point either. It's a fight, often requiring two or three alarm clocks if I need to be up early to cover an event or catch a train. However, sleep is as important to health as good exercise, and many fitness gadgets offer sleep monitoring as part of their feature set. This one's slightly different, because rather than using motion sensing, it actually monitors electrical activity in the brain. Imagine a sleep cycle as an inverted bell-curve, you start light, fall down deeper and gently come back up to being nearly awake. It's a process that people go through several times a night.

With the Zeo Sleep Manager, you set an alarm "window" of, say, 20 minutes (so if you'd get up at 7:00, you'd set it between 6:45 and 7:05) and the device will see when you're at the peak of a cycle within that window and wake you up then, rather than at a defined time. If you're still deeply asleep at the end of the allotted time, the Zeo will helpfully wake you up anyway.

I strap the Zeo Sleep Manager onto my head and I feel self-conscious as I realize I'm wearing an obsidian tiara to



## FIT GEAR

**Zeo works by scanning electrical activity in the brain, working like an EEG, EOG and EMG combined. It has to stay in close contact with your forehead to maintain a reading because of the low-level of electricity available. It then pushes this information over Bluetooth to a cellphone or docking station, which acts like an alarm clock.**

bed. It pairs to your phone for control, but you can only use one in the house, as it's essentially a "dumb" device. Most importantly, you must leave your phone on without pressing a single button for it to work — I miss that fact the first two days I use it, instinctively pressing the "screen off" button as soon as I put it down.

Wearing a device like this can, at times, be unforgiving if you're an awkward sleeper. If you sleep with your head on your arms, you'll sometimes find yourself awake for hours just relentlessly aware of its unwelcome presence. What alarms me the most is that the Zeo actually seems to work. After a few days of adjustment, I find that it wakes me without the horrendous fighting that I've normally experienced over the last two decades.

There is one important caveat to add, because beautiful sleep does come at a price. If you are cohabiting, you may wake up every morning free from fatigue and full of joy, but you'll also discover your significant other will be irritable for most of the day. Your alarm clock will be supplanted by a sharp elbow to the ribs.

## WEEK THREE:

### JUST DANCE 3 (WII)

107KG / 235LBS



Acting upon the advice of several svelte, active people, I pick up a copy of Ubisoft's *Just Dance 3*. They promised me that it would remove my jaded feelings toward the Wii and reinvigorate my campaign for healthiness. In the interests of science, I give it a go. The song selection isn't to my taste (most of the titles are bowdlerized top ten hits, instrumentals or Euro-pop singles) but I find something inoffensive and begin. It's at this point I realize that I shouldn't have tried doing this in jeans and a T-shirt. Copying the movements of a trained French dancer with decades of experience is not something that comes naturally, and halfway into that first song, I'm already a gibbering wreck.

As tempted as I am to give up, I'm forced to admit that it's both fun and funny. Once you close the curtains, change into something a little looser and leave any preten-



## FIT GEAR

*Just Dance* is like *Guitar Hero* with even more intentionally flailing limbs. Based on a mini-game in Ubisoft's *Raving Rabbids*, players mirror the actions of an on-screen dancer with the Wiimote in their right hand corresponding with the movement of the dancer's. There's also a Kinect version that features full-body tracking [and was far more accurate when I tested it a few weeks later].

sion you might be carrying at the door, it's fantastic fun. Ubisoft found the same thing, that the game encourages people to get moving without realizing that's what they're doing (paging *Carmen Sandiego*). One woman in Florida was so motivated to get a high score, she shed 50 pounds playing the game, so the company added a "Just Sweat" mode. It won't disclose the ratio of "Sweat Points" to calories, but with a little research, it's in the (very subjective) ballpark of 2.5 points to one calorie (some think that ratio is lower, some think it could be as high as five, so let's play it safe). You can choose one of three fitness programs, "Fresh Start," where you can burn off 1,400 calories in seven days, "Healthy Choice" to tackle 2,800 or "Sweat Explosion" for 8,400 in the same period of time. Undeterred, I select the latter and hope for the best.

It is enormous fun doing it because, while yes, it is a dancing game, and yes, it is heavily skewed towards a female demographic, I really enjoy being able to move better, learning how to move properly by copying a professional and taking a moment to not be so deathly serious in a world that demands it. Some men will find it an affront to their masculinity to even consider playing it, and those people are missing out on a fantastic way of increasing their fitness levels that's both high-impact, and means you don't have to embarrass yourself outdoors. By the end of the week, I'm mildly proficient with the game, but better than that, my heart palpitations have reduced considerably, I stop looking so sallow and start sleeping through the whole night without the customary heart-beating disturbances. For those reasons alone, I'll keep the game around for those moments when I'm feeling whimsical.

## WEEK FOUR:

### STRIIV

105.5KG / 233LBS

Described as the "personal trainer in your pocket," Striiv is a \$99 touchscreen pedometer that looks like a tiny Android phone. Once you learn how to prod that resistive touchscreen (very, very hard), you clip it to your waist-



## FIT GEAR

Pedometers use micro-electromechanical sensors to detect steps and are intended to be used as a low-impact way of coaxing people to exercise. Current medical consensus is that a person should take 10,000 steps each and every day: roughly equal to a five-mile walk. However, most pedometers are easily gamed and do not take into account the age or fitness of the user, and the universal five-mile target has been criticized as it isn't suitable for children (who should move more) or the chronically ill or elderly (who may be unable to achieve it).

band and watch as it keeps track of how many steps you take, how much you run and how many stairs you climb. Pedometers are easily gamed, so I give it a good hard shake to determine my margin of error, but it isn't biting. If you're fixated upon sabotaging your own progress, you can learn how to replicate a stepping motion in your hand, but it really isn't worth it.

How can a lowly pedometer motivate me? On day one, it tells me that I took around 1,000 steps and only scaled my stairs three times, which is a bit of a shock. However, it isn't enough to make me remember to take it with me on the second day. Unfortunately, a graph can't grab you by the lapels and explain how rapidly you're rushing toward your own demise. Instead, it's got a three-pronged attack that attempts to coerce you into becoming more active.

*Walkathon* is a program in partnership with Global Giving, whereby every time you hit 18,000 steps (around eight miles), the company donates cash to protect a parking-spot-sized square of Tanzanian rainforest for a year, or supply a day of clean water to a Bolivian child. If you fancy a loftier challenge, you can save up 60,000 steps and donate a dose of polio vaccine for a child in India. I choose the water option and I'm immediately presented with an empty water jug -- the more I walk, the more it fills up. When it's full, I simply plug it into the desktop and send my donation off.

Then there's *Myland*, a fantasy-themed game where you help a Zelda-esque centaur plant a garden. The more you walk, the more plants you can buy, enabling the garden to grow even bigger. I won't lie: the only reason I spent longer than 20 seconds with this is that I had to write about it. But everyone's different, and I'm sure plenty of people will enjoy playing *Zelda: The Greenhouse Years*. I certainly won't judge.

Finally, there are challenges, which crop up and offer you a "step bonus" (which won't affect your count, but will contribute to your Walkathon or *Myland* tallies). Having just climbed the stairs, it eggs me on to climb a further 25 (or walk up and down them again twice more)

for a big bonus, and since I have nothing else to do, I fall in line. Watching that water jug fill up with clean blue water provides a moderate kick because I'm not going out of my way to make a greater effort. That's how it gets you: it's insidious. It isn't long before you start accepting the challenges as a matter of course and eagerly select them when you're out and about.

The moderate exercise offered here is a step backwards compared to the high-impact efforts of *Just Dance*, but once it gets its hooks in me, it changes my daily routine — offering enough incitements to improve my exercise at such a gentle level that I don't resent it. Moreover, I know I'm not doing it just for myself; as I lose weight and became more active, I am paying it forward to those in even greater need.

## WEEK FIVE: MOTOROLA MOTOACTV

104.1KG / 229 LBS



Motorola's long-gestating Nike+ rival, MOTOACTV, is the most powerful device I'll use. It's also the one I'm most intimidated by. It's pitched by marathon runners to people who categorically *know what they're doing*. Letting me use one is like giving the nuclear codes to a particularly testy child. After connecting the unit to my computer, it launches the Motocast software (a nice touch) and pulls my playlists directly from iTunes. Once set up, I go to the accompanying website where you can schedule your sessions, launch pre-defined 12-week fitness programs and plan your routes. It'll act as a wrist-mounted music player, but it's also a very accurate GPS tracker and will pair to a compatible Android phone when you're on the go.

On those rare occasions when I go for a run, it's an open invitation for members of the public to give a toss about what I'm doing. They'll usually offer up an insulting opinion or two to the risible character they presume me to be. I've experienced it enough to take it as a certainty. Fortunately, England is beset with a period of torrential rain during my test drive, meaning that I'm able to jog around knowing that everyone else is confined indoors.



## FIT GEAR

You'd be forgiven for thinking the MOTOACTV is an iPod nano with a wristband. It bests the competition by packing in a hands-free kit for your smartphone, GPS and a self-aware music playing mode that'll identify the songs you run the best to. When back at home, you can sync your workouts online and share challenges with your fellow runners.

It's surprisingly fast to find the satellite as I get going, and for the first 500 yards, decades of agonizing running experiences disappear and I start to feel that running might be something I could take to.

I then hit what I've been told is "the wall."

Hot sparks of electricity shoot up my shins, my chest compresses to the size of an ice cube and my face balloons to the size of a small country. It's at this point that I begin to resent the MOTOACTV for trusting me with the intelligence to choose my own course. Windows and OS X will nanny you incessantly if you want to run a program it doesn't trust, but as I go through the stages of a heart attack, I wonder where the "Are you sure you want to set a three-mile run? Shouldn't you set your sights a little lower?" popup has gone to. Half a mile later, I walk back to the house and lay down in the hallway. It advises me that I'd burned 86 calories in the seven minutes of exercise I'd done, and I am heartened a little.

However, I don't (and can't) stop there, much as I would love to. I have an experiment to carry out, and I'd be damned if I was going to let something as simple as my own mortality get in the way. Each time, I trot out with a short and blissful run, followed by an agonizing retreat home (with one eye on looking for a liposuction clinic in the nearby regions). Worst of all, I'm in love with using the unit. I managed to marshal all of those features with ease and I never had to worry about its allegedly short battery life. If I had 12 weeks to go on one of its tailored plans, I suspect I'd be stumping up the cash to buy one right away — my only gripe being that it doesn't have a pedometer to fall back on when you're monitoring data indoors.

## WEEKSIX:

### COUCH TO 5K

103.5KG / 228LBS

Let's begin with an apology, because I was clearly out of my depth with the MOTOACTV. While having a reach that extends beyond your grasp is often considered noble, it was nothing of the sort in this case. It is a painful remind-



## FIT GEAR

**Couch-to-5K was created by Josh Clark in 1996 as a way to encourage himself (and his 50-year-old mother) to exercise by way of short bursts of interval training. Users walk for five minutes, jog slowly for one and repeat, with the program increasing the intensity and duration of the running portion over a period of nine weeks. Various apps (and free podcasts) are available for mobile devices. I used Active.com's purely because it was recommended.**



er that being five weeks into a health and fitness program doesn't mean that I can leave the minor leagues of pedometers and make the leap to professional running gear. In short, I just wouldn't be worthy of the MOTOACTV until I'd learnt the intermediate stages of exercise, and since I can't afford (or justify) a personal trainer, I have to find an electronic equivalent. A couple of co-workers suggest I stump up £1.49 (\$2.30) for Active.com's Couch-to-5K app for the iPhone, designed to transform sofa-bound fat-ties into runners capable of completing a five-kilometer (three-mile) race.

So what can an iPhone app do? It offers up a staggered, managed program of walking and jogging in order to build a base level of fitness. If you've never jogged before, it's hard to demarcate it from running, but eventually you find a pace that feels comfortable. After two or three bursts of activity I find myself succumbing to stitches, but every time I'm on the cusp of giving up and sulking off the app switches to walking. It's ridiculously easy to use (it's hard not to, as you just do what you're told) and it's fantastic that you have an encouraging voice talking you through things — I clearly respond well to nannying.

I do have one niggle with the app itself: if your phone is locked, it won't maintain audio coaching. However, the app's own screen lock works inconsistently which can knock you off your pace. If you time your screen locks right, you can force the countdown timer to stutter before it tells you to run again, great if you need to delay the next burst of jogging by an extra second.

At the end of week six, I notice that I'm starting to move around involuntarily, just shifting from foot to foot while cooking and generally being more active. I even start looking up exercises that would help to reduce my considerable thighs and, best of all, I go to purchase a running top and I can now wear a large. A large. It's an achievement purely because since records began, I've always worn XL or XXL at a bare minimum. My jeans aren't forced by my physical geography to linger around my hips — I can

now wear them around my waist (something I'll have to get used to, admittedly) and I'm generally feeling very, very good. I wonder if this fitness bug is somehow catching. In fact, this app is something I'm going to have to go back to when not trapped by the confines of an eight-week experiment, even if that does mean my future fitness will have to wait until after my nuptials.

## WEEKSEVEN: FITBIT ULTRA

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101.1KG / 223 POUNDS



I'm entering the final straight now and my suit fitting is coming ever closer, so it's time to make one last big push. I'm so close to weighing less than 220 pounds (100 kg) for the first time as an adult. I've even looked up what my ideal weight should be: roughly 165 pounds (75 kg). I couldn't dream of making that in the few short weeks before the nuptials, but suddenly that goal doesn't seem like an insurmountable challenge. I'm determined to get down below that golden 100-kg number before the wedding, with the Fitbit Ultra as my next companion.

It's the oddest-looking product I've seen in a while, built like a clothes peg you can't open clad in a blue, plastic body. It's designed to be clipped onto your waistband during the day and on a supplied wrist cuff in the night — offering both activity and sleep-tracking functionality in one device. A handy charging dock doubles as a wireless access point, meaning it'll sync automatically with the Fitbit website and keep you updated on your progress via email. Its versatility is a weakness too, since none of the sensors are as reliable or accurate as those on a dedicated device — for example, after the first night it told me that I burned nearly 1,000 calories while I'd been asleep.

When I go for a run, it's utterly unobtrusive, but there's no GPS integration, just that pedometer and altimeter that tells you how many steps you've made and it works out the rest of the data from your height and weight. You'll do most of your interaction over the Fitbit website, which will tell you how far you've gone each day



## FIT GEAR

Fitbit, invented by James Park and Eric Friedman, is a pedometer that also offers sleep tracking. It measures steps taken, distance walked, calories burned and how intense your movements are. It has a small OLED display and a single button for control, so you will interact with the device predominantly via its online portal -- which it syncs with whenever it's near its desktop-connected base station.

(including an amusing list of equivalent landmarks you'll have climbed) and offer pre-selected food- and weight-tracking plans. It expects you to make a lot of effort on its behalf, so only people who enjoy entering a lot of data onto a website will get the benefit. The site offers food- and calorie-tracking options, but the math could get tricky if you're trying to follow a controlled diet.

Food tracking would be better if the database was exhaustive — despite my rather un-exotic diet, I still have to manually enter all of the foods I eat. To get good data, I have to weigh my meals and hunt around in the bin for any calorie information I've omitted — which makes me wonder if the database is aggregated for all of the device's users. I've learned that obsessively journaling your food intake isn't healthy, so the fact that this isn't easy is a big turn-off for me — and after a few days, I give up trying.

I like the Fitbit because of its unobtrusive nature. I'd be happy to keep it on me forever, but it doesn't offer me any encouragement to do well. It's a reasonable sleep tracker and great if all you're looking for is an all-in-one device to keep yourself in check. If you're looking for something to wrestle you away from the sofa, however, I don't think this is for you.

## WEEK EIGHT: NIKE+ SPORTWATCH GPS

100.4KG / 221LBS

It's the final roll of the dice. At the end of this week, I'm off for the all-important suit fitting and the end of this project. I finish with Nike and TomTom's Nike+ SportWatch GPS, a bulky black and neon timepiece that also serves as a fitness coach, GPS tracker, stopwatch and timer. As soon as I strap it on, I instantly feel more athletic. I'm reminded of the joke, "How do you know if someone has an iPhone? They tell you." The watch has an unspoken cachet of exercise that speaks of weekends spent climbing mountains rather than chugging biscuits in front of the



## FIT GEAR

Developed by Nike and Apple in 2006, Nike+ began as an iPod accessory that required a wireless shoe sensor. The company subsequently grew the range with the TomTom-powered Sportwatch, the Sportband and a stand-alone iPhone app. The watch tracks your run, offers pre-set interval programs, will pair with compatible heart-rate monitors and will upload your data to the Nike+ website.

TV. Now I get why so many people wear heart-rate monitor watches to the office: to show off.

Fashion aside, I'm pleased at how comfortable it is on the wrist and how easy it is to operate. You may lament the absence of a touchscreen, but it would add an uncomfortable level of complexity to this unit. Instead, there are three sturdy rubber buttons (up, down and enter) along the left-hand side and a touch- (okay, slap-) sensitive bezel for activating the backlight and marking laps on the go.

The USB port is built into the strap itself, which makes me paranoid about breaking it, but it is clad in sturdy black plastic and I'm unable to do it any damage during testing. Once I'm set up on Nike+ online and the management software is in, I'm ready to go. I set up a fitness program and lay down a challenge on the Nike+ website for anyone to join me. Within the day, I have four challengers all vying to hit the target of running 14 miles in the week-long period I've allocated.

When you start a run, it takes several seconds for Nike+ to hook up with the local GPS satellite, only annoying if you're standing still in torrential rain as you wait. It even comes with its own interval training program. Be warned, however, as soon as it's activated, it puts you straight into a two-minute run without a warm-up. When it switches from "run" to "rest" phases, it beeps, but between the noise of busy roads and the sound of my own heavy breathing, it's impossible to hear. This means I have to keep looking at the watch to make sure I don't miss a transition or two. Upon finishing, it tells me that I've had a good "first run" and offers an aloof, yet motivating message, storing my personal bests for my edification (or boasting) after the fact.

Because I'm able to wear it as a watch, it becomes a permanent reminder to run, and motivates me to stay active. With its help (and the experience gained over the last eight weeks) I am able to maintain my own exercise much more effectively. Now all I have to do is try and beat that community challenge...

## THE RESULTS

Those were eight very long, sometimes very painful weeks. So, did technology improve my life? Without question.

Many of the ailments that have aggravated me over the last two decades disappeared during the course of this experiment. I now get a comfortable eight or nine hours of sleep and my concentration has improved markedly.

Physically, plenty of the less attractive landmarks on my body have reduced in size and I'm able to wear clothes a decent few sizes smaller than when I started. In my mind, it wasn't until the weekend between weeks seven and eight that I had my epiphany. After eight hours, 23 minutes of sleep, I got up on Saturday morning and felt compelled to go for an extra run. I've previously only ever tried to achieve an early-morning run in those misguided attempts at post-New Year's Presbyterianism. But there I was, jogging around in a hailstorm in the hope of shaving a few more inches from my frame and minutes from my time.

For me, there are three broad categories of exercise gadget: those which didn't work, those which relied upon self-motivation and those which did the hard work of coaxing me out of my chair. Of course, no talking watch can force you to get up, and if it could, you'd soon "forget" to charge it, but as soon as you find that spark of inspiration, you'll find things much easier with one of these at your side.

The Zeo did it by giving me the tangible and welcome benefit of painless morning routines. *Just Dance* made a workout silly, ridiculous fun that helped me sweat off plenty of calories in the privacy of my own home. Striiv appealed to my social conscience, and I wanted to do better to help those less fortunate. Couch-to-5K made it impossible for someone as exercise-averse as me to

**THERE I WAS,  
JOGGING AROUND IN  
A HAILSTORM IN THE  
HOPE OF SHAVING A FEW  
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FROM MY TIME.**

**BEFORE****AFTER**

come up with a decent reason not to go for a run.

The Fitbit was a fantastic all-round companion and, while I doubt its accuracy, I adore its ease of use and its power as a true all-rounder. The MOTOACTV is a technical achievement that I love and would readily buy tomorrow if there was a watch-based version that was also iOS-compatible. The Nike + Sportwatch made me feel like I'd achieved things and I respected and liked plenty of its features — you never know, it might become my next timepiece.

Wii Fit? Without a doubt, a significant waste of my time, money and motivation. I suggest no one attempt it if they're pondering a weight loss program. It's simply not challenging enough to coax people into exercising. I'm sure some have managed great success using the device, but I'm not one of 'em.

A plastic-surgeon called Maxwell Maltz is credited to have said that if you do something for 21 days, it becomes a habit. I'm coming to the conclusion that, as difficult as it appears when you're on the sofa, when you find a gadget that you can respond to, it doesn't take too long at all before it becomes second nature to use it.

Of course, you want to know the results, so here goes: Eight weeks ago I weighed 239 pounds (108.4 kg) and now I weigh 219 pounds (99.6 kg). I've lost around four inches from my hipline, having swapped a pair of size 42 jeans for a pair of size 38s that I'm wearing as I write this. I've gone from having a shirt size of 17.5 inches to 16.5 inches and when worn, they no longer bulge at the midriff (or worse, pop open when I'm eating). I've also started to think more seriously about my eating — after all, I've still got nearly 25 kg to lose before I'm a healthy weight, but that no longer seems like an impossible goal. So, to answer the question then. Did technology make me fitter? Happier?

Yes. Yes it did. I'm as shocked as anyone.

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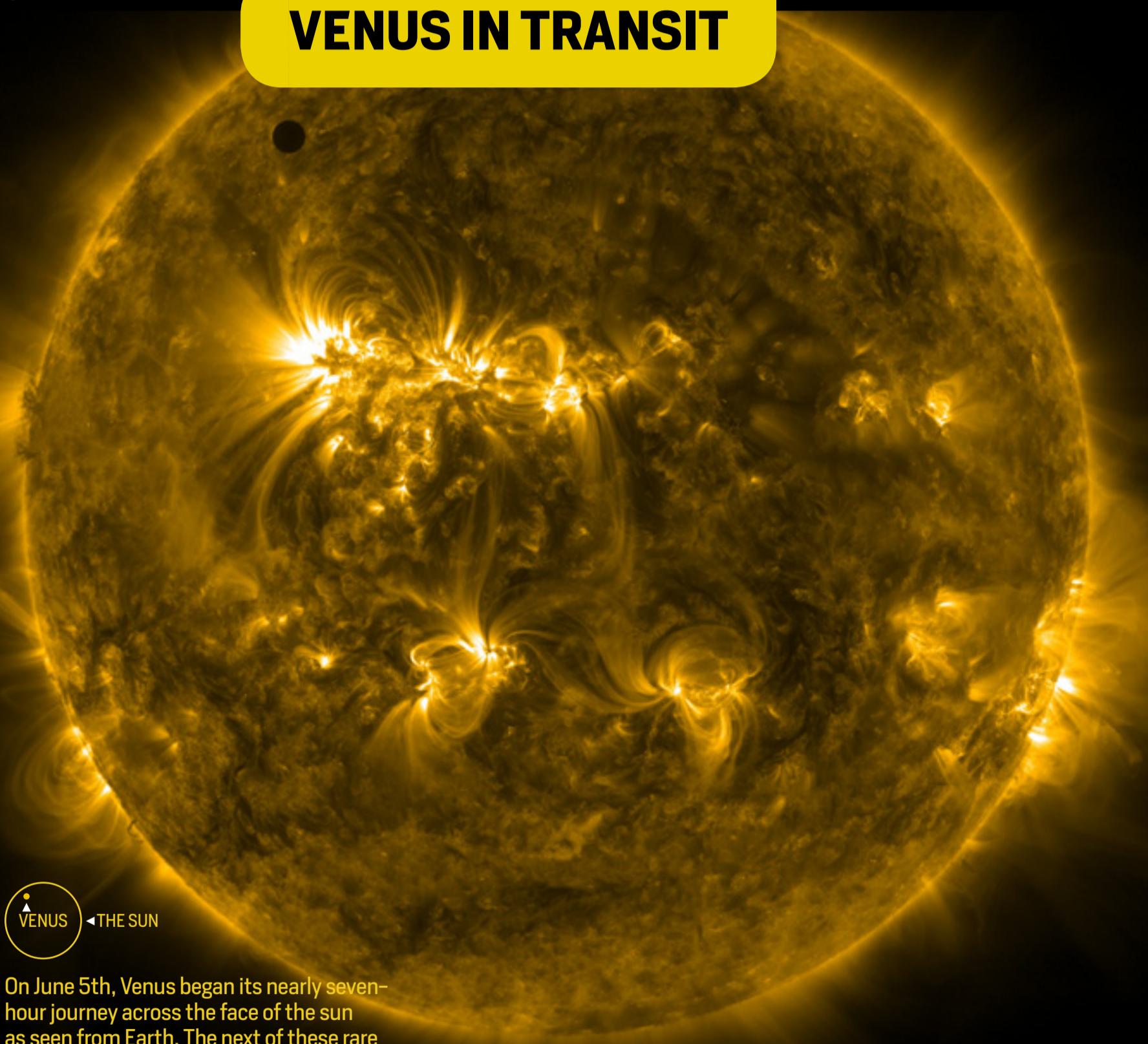
*Dan is a man of many words, most of which are foisted upon his unsuspecting audience on Twitter.*

# FSC

DISTRO  
06.08.12

VISUALIZED

## VENUS IN TRANSIT

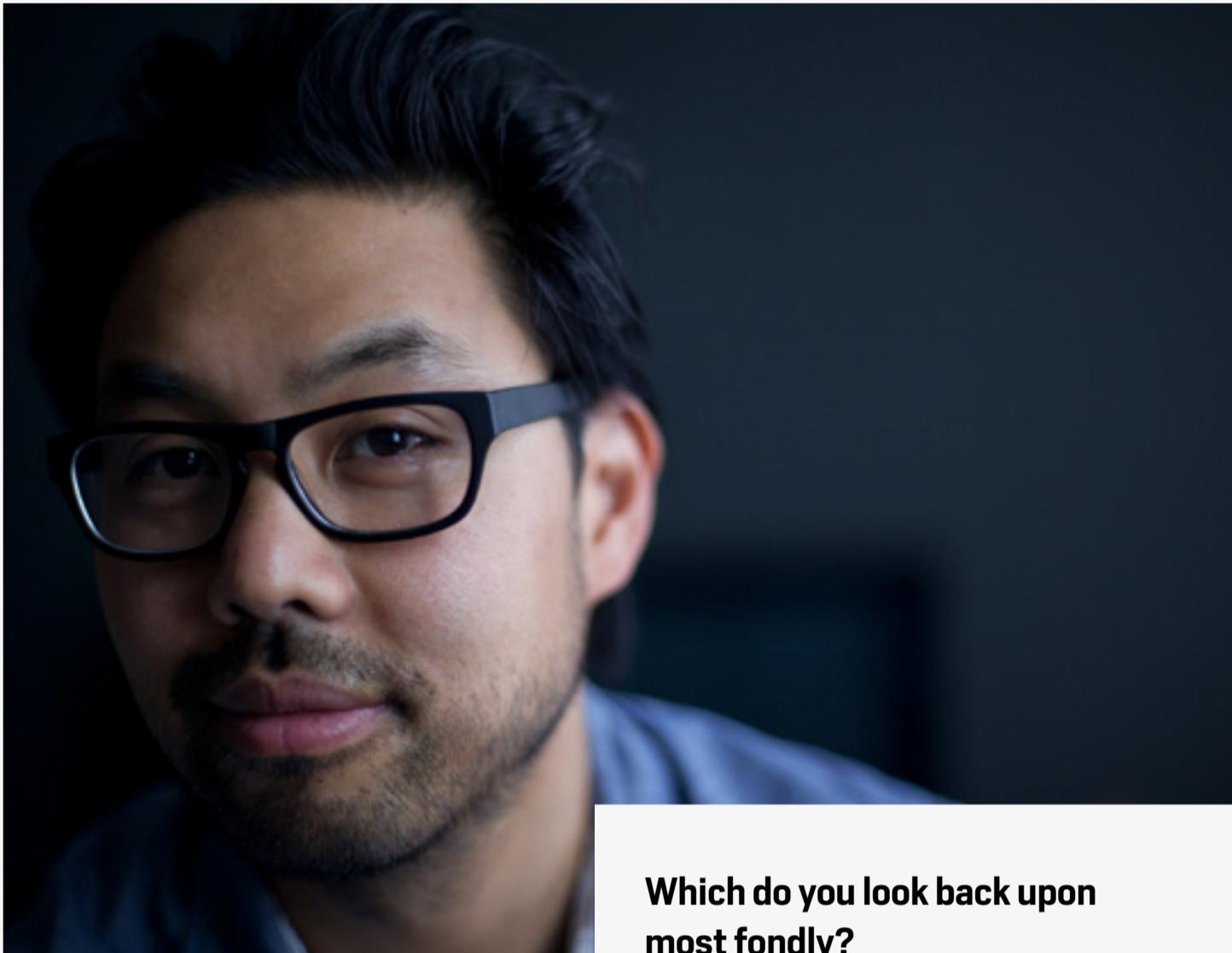


THE SUN

On June 5th, Venus began its nearly seven-hour journey across the face of the sun as seen from Earth. The next of these rare transits isn't expected until the year 2117. This image was captured by NASA's Solar Dynamics Observatory in the 171 Angstrom wavelength of extreme ultraviolet light.

NASA/SDO, AIA

## WYNN RUJI



**LA-based photographer [WYNN RUJI](#) talks about old school gaming, Wii bowling and a cat named Jpeg.**

**What gadget do you depend on most?**

I'm always trying to find a balance between work and play and as much as I'd like to think work is play, most often times it is not. The constant marketing (not a fan) and education makes the 10 percent that I do love all the more worthwhile. If I were to choose one gadget, it would be the iPhone 4. The iPhone, starting from the 3G was the first device that straddled my work / play life perfectly.

**Which do you look back upon most fondly?**

There are so many, but I'll never forget the endless sessions of *Motorcross Maniacs* on the original Game Boy. Or maybe it was the 3.5" floppy drive attachment (I can't remember the name) that sat on top of my SNES.

**Which company does the most to push the industry?**

Apple. We had the Apple IIe growing up and subsequent Apple computers since then, but not until the iPod and iTunes did I see Apple products really integrate into my lifestyle. Fast forward a few years and it's hard to imagine my day to day without an Apple product.

**“My parents are the least tech-savvy people ever, but I’ll never forget the smiles on their face when they played Wii bowling for the first time.”**

**What is your operating system of choice?**

Mac OS X 10.7.4

**What are your favorite gadget names?**

PlayStation, Game Boy and my cat jpeg (he’s like a living gadget to me).

**What are your least favorite?**

Alphanumeric names

**Which app do you depend on most?**

Camera app. Mail comes in a close second.

**What traits do you most deplore in a smartphone?**

Lag.

**Which do you most admire?**

Intuitive UI, simple design

**What is your idea of the perfect device?**

I’m not sure I can imagine such a

thing. I was on holiday recently in Hawaii and brought my full camera kit with me. As much as I love gadgets, what matters most to me is what they allow me to do. And the less time I’m fidgeting with the tech, the more time I can spend doing whatever it is I’m doing.

**What is your earliest gadget memory?**

My family getting an Atari 2600 for Christmas when I was four years old.

**What technological advancement do you most admire?**

Accessibility. My parents are the least tech-savvy people ever, but I’ll never forget the smiles on their face when they played Wii bowling for the first time.

**Which do you most despise?**

Lack or loss of focus.

**What fault are you most tolerant of in a gadget?**

Availability.

**Which are you most intolerant of?**

Responsiveness. It takes me out of the experience when I have to wait for something. And this is coming from someone who used to wait 10 minutes for games to load on my Commodore 64. We’re so spoiled.

**“I would love, love, love if Apple collaborated with a major camera manufacturer to incorporate iOS into a line of cameras.”**

**When has your smartphone been of the most help?**

Whenever I'm in a new city. I'm fearless if I have a fully charged iPhone with me. Also when I'm scouting a new location, the combination of Sun Scout, Artemis and Photosynth is a hard combo to beat. I am constantly amazed at how much the iPhone has streamlined my workflow.

**What device do you covet most?**

I would love an iPhone with interchangeable lenses — while retaining the same form factor. Give me three focal lengths (35mm equiv): 16mm, 35mm, 80mm. And give me the ability to rotate that lens so that I can use it as the back or front-facing camera. But if that doesn't happen, I would love, love, love if Apple collaborated with a major camera manufacturer to incorporate iOS into a line of cameras. 5DMK3 with a 3.5-inch screen running iOS? Yes, please.

Or an ultra compact iOS-equipped S95?

**If you could change one thing about your phone what would it be?**  
Better cell coverage; fewer dropped calls.

**What does being connected mean to you?**

I struggled with this question. And the more I thought about this, the more I became depressed. There's a great book called the “Paradox of Choice: Why More is Less” by Barry Schwartz. He writes about how if people are given more choices, they are less happy than if they were given fewer choices. I can't count how many times I've researched a gadget I've wanted to buy, only to become paralyzed by having too many choices. And when I buy the gadget, I am less happy because I think about the other gadgets that I could have bought. Anyway, the book is worth a read and there's also a TED talk. Wait, what was the question again?

**When are you least likely to reply to an email?**

When I'm behind a camera.

**When did you last disconnect?**

Let me check my calendar... 

# E3, Screen Two

DISTRO  
06.08.12

ESC

SWITCHED  
ON

BY ROSS RUBIN

**P**articularly since the rise of laptops and their ability to be used in the living room near a TV, consumers have been engaged with multiple screens simultaneously. In those early days, many of which occurred before the consumer-friendly Web, people were even more likely to tend to tasks unrelated to what was on the tube (which, back then, actually was a tube). As standards such as WiFi, DLNA and automatic content

recognition develop, though, the use of second screens have the potential to form tighter links with what's happening on TV. At the recent Electronic Entertainment Expo, the three major home console companies all showed off their approach to bringing home video games and other content further beyond a single display.

## THE INTEGRATOR: NINTENDO

Nintendo has the longest and most successful history in portable gaming to complement its long string of home consoles. In a sense, it is also the company with the longest history in multi-screen

programming, having guided developers to taking advantage of the two screens on the Nintendo DS and its successors. But the forthcoming Wii U's GamePad represents a new level of second-screen integration for a home console and Nintendo used E3 to show off not only the developer support pledged for the Wii's successor, but how at least some of them are taking advantage of the second screen.

The GamePad has two main things going for it. Its inclusion with every Wii U ensures that developers can count on it being there, at least for one of the players. Also, the size and resolution will be con-



sistent across every Wii U. Like the 3DS and the Wii before it, developers will be somewhat challenged to optimize their games for the GamePad without jeopardizing gameplay mechanics too much on other platforms. But much of the touch-screen trickery they have dabbled in on mobile platforms should be useful in developing for Nintendo's screen play.

## THE POLLINATOR: SONY

Beyond a brief flirtation with the minimal LCD of the PocketStation, Sony has long played up the PlayStation's role in conjunction with that of its corporate sibling as a legendary electronics provider. That link, though, had little direct product influence until the launch of the Blu-ray-equipped PS3 and the more recent 3D PlayStation television. On the smaller screen side, Sony is reaching out to support PlayStation titles on multiple screens — including non-Sony devices — via its PlayStation Mobile (nee PlayStation Suite) initiative. At E3, it announced that HTC will be the first third-party hardware company to sign up.

But its real two-screen play is its own PlayStation Vita, which will be capable of cross-play with select games when paired with a PlayStation 3. As with Nintendo's Wii U GamePad, the interaction between the Vita and PS3 will be focused mostly on games. Unlike the GamePad, however, the Vita is not only a separate purchase, but a pricey one that few would ever consider unless they had a penchant for its mobile entertainment muscle. Still, Sony

stands by the value of offering developers opportunities for an optionally enhanced experience; the PlayStation purveyors would hope that the Vita is to the Wii U's GamePad what Move has been to the original Wii Remote.

## THE AGGREGATOR: MICROSOFT

There's neither a new home console (Wii U) nor a portable one (PlayStation Vita) that relates to Microsoft SmartGlass effort. In fact, it does pretty well without (and with) Microsoft's Kinect device. But SmartGlass is the broadest multi-screen initiative to come out of the major home console vendors, both in terms of the range of possibilities as well as the number of supported devices. Indeed, up until now, home consoles have only slowly forged links with other parts of their own ecosystems; SmartGlass, in contrast, embraces all of them.

SmartGlass is a generalized second-screen technology that can support a wide array of second screens, including smartphones that run Windows Phone, iOS and Android and tablets that support Windows 8, iOS and Android. Contrary to its name, though, the product that arranges all the routing among these scenarios is not a piece of glass at all but Microsoft's Kinect console. Microsoft has shown off a wide range of two-screen scenarios, including GamePad-like touch-screen maneuvers (albeit without the GamePad's physical joysticks and buttons), the old standby of resuming a movie watched on a tablet or smartphone up

# “Of the three competitors, Nintendo is the only one that has staked the future of its home console business on a second-screen experience.”

on a TV, enabling controls for its forthcoming Internet Explorer for Xbox, and second-screen video programming.

While Microsoft is seeking to maximize the popularity of SmartGlass (and perhaps notch up a bit of goodwill) by supporting the main rivals to its mobile OS, it's ironic to see the company, which has decried the variation among Android devices, now seek to convince both game and video content developers that they should support such devices. Here, Microsoft has its work cut out for it as services such as HBO Go (which was offered as a demo example) today eschew most Android tablets even for single-screen use.

Still, if it can manage this feat, Microsoft could win big by keeping the price of two-screen interaction low using high-quality devices that are rapidly penetrating their target market. And while it might cede some ground to Nintendo and Sony by leaving behind physical buttons on the second screen, that tradeoff is one that has been suc-

cessful for the company in pitching Kinect versus the Wii Remote and Sony's Move controller.

## THE END-GAME

Of the three competitors, Nintendo is the only one that has staked the future of its home console business on a second-screen experience and so we can expect the company to make the strongest case for its use among game developers. The consistency and prevalence of the GamePad among Wii U buyers will help with this effort as will Nintendo's tendency to support its own platforms with big franchises. Microsoft's general approach also has its merits, particularly for video applications, although it might become cumbersome to juggle both a smartphone and particularly a tablet along with a traditional two-handed game controller; perhaps SmartGlass will be more of a factor in Kinect-driven games.

But while Sony's approach with the Vita may be the least enticing to developers from a pure cross-ownership perspective, it wouldn't at all be surprising to see Sony adopt its own take on a general SmartGlass-like approach, particularly for video entertainment. Indeed, the company is surely looking beyond the remote control capabilities in its tablets today to consider two-screen video tactics with its own, and perhaps other TVs, without having to go through the PlayStation. ◆

The week that was,  
in 140 characters or less.

# GOOGLE MAPS, LINKEDIN HACKS AND AIRTIME VIDEO CHAT

**@gartenberg**

So it's chatroulette meets Facebook video. Somehow doesn't feel revolutionary once you strip out the hype & celebrities.

**@Nicole\_Scooter**

Microsoft keynote comes to an end, noticed a lot of people sleeping...  
##computex

**@harrymccracken**

Signature moment of PlayStation E3 event: exploding brains. At Nintendo event: Mario grabbing even more coins than usual.

**@johnbiggs**

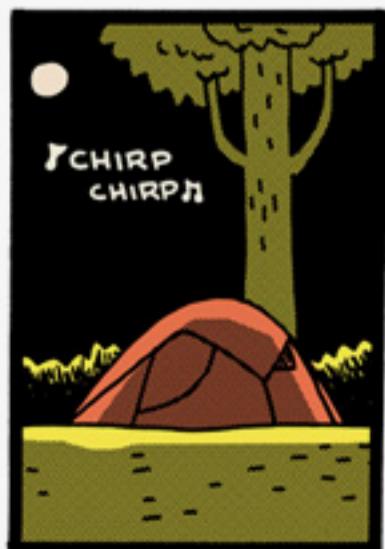
In the interest of saving hackers' time, I just changed my LinkedIn password to "fishery99."

**@mat**

On my way to that Google Maps thing. Hope I can find it.

THE STRIP

BY BOX BROWN



DISTRO  
06.08.12

ESC

TIME  
MACHINES



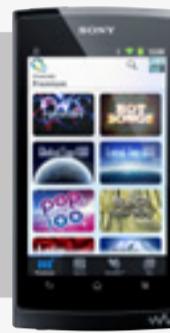
DISTRO  
06.08.12

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MACHINES

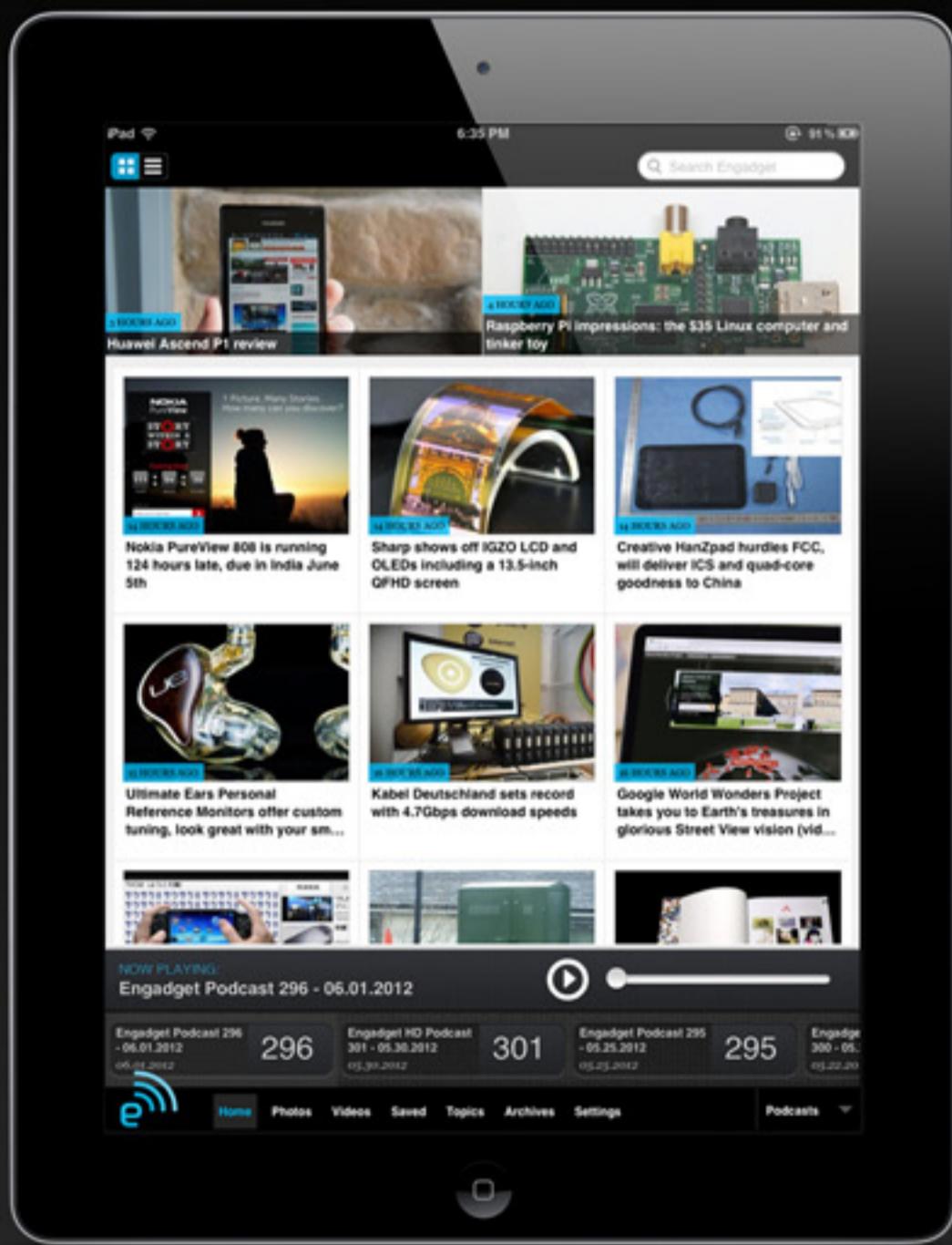
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MODERN  
EQUIVALENT:  
Sony  
Walkman Z



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